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A Library of the World's Best Spoken Thought

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New York
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Debates

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Introductory Essays by Eminent Authorities giving a Practical Course of Instruction on the Important Phases of Public Speaking

MODERN ELOQUENCE

A Library of the World's Best Spoken Thoughts

VOLUME IV

Business · Industry · Professions

BUSINESS ADDRESSES

Edited by

ASHLEY H. THORNDIKE

Professor of English, Columbia University

NEW YORK

LINCOLN SCHOLARSHIP FUND, Inc.

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PREFACE

Speeches representing business and industry now occupy Volumes IV and V of "Modern Eloquence," where they are arranged alphabetically by speakers. The two volumes permit the presentation of a much wider range of subjects, a greater variety of occasions, and more different kinds of speeches than were offered in the single volume devoted to business in the preceding edition of 1923. That volume was something of a path-breaker, since nothing of the sort had been attempted before, and it has had an influence in directing attention to the great importance of public speaking in business. The Preface of 1923 is here reprinted without change partly because it is a discussion of conditions which are still operative and partly because it sets forth the principles which have governed the selection of speeches for both the old and the new editions.

PREFACE TO THE EDITION OF 1923

When the first edition of "Modern Eloquence" was published, it contained very few speeches by business men and very few speeches on topics of primary interest to the business world. In the old days if a Board of Trade or a Chamber of Commerce held a dinner, it was likely to call in a clergyman or a politician to make the speech of the evening. The successful banker or manufacturer did not usually view the art of eloquence as of much practical service in his affairs, however delightful an accomplishment it might be for men of greater leisure. To-day, conditions are different. Our great commercial concerns have employment for good talkers. The leaders of the industrial world are invited to the platforms of our colleges and welcomed as speakers at our dinners and assemblies. Our huge corporations have spokesmen to present their cases before the bar of public opinion. The twenty years that have elapsed between

the first and revised editions of this series have witnessed the successful entry of the man of business into the forum of public discussion. Any young man may well regard a training in public speaking as an essential part of his preparation for a career in business.

Although the causes which have brought about these changed conditions are too numerous and complex for a brief analysis, a few of them may be noticed because they are still operative and likely to attract increasing attention and comment.

In the first place, the last twenty years have been marked by an enormous expansion of advertising and salesmanship in this country. We are temperamentally sellers rather than buyers, and modern commerce relies in the first instance on extension of sales. It requires talk to sell goods. Superior salesmanship requires superior talk. One of the chief uses of eloquence in the daily task of the world's work is to present the merits of some article, person, organization or idea so as to persuade and convince the public. Our great industries are ever seeking for young men who are sellers, who can use the arts of speech so as to inform and persuade.

A second cause for the increase of public speaking among business men is to be found in the multiplication of associations. Every city now has its Board of Trade or Chamber of Commerce. Every retail or wholesale group of merchants, every industry, every trade has its organization. The largest of them is doubtless the American Federation of Labor with its membership of nearly five million; but there is no group of employers or employees so small that it cannot find affiliation with some similar bodies. The existence of an association of any sort demands public speech. The very essence of organization is a common and helpful understanding among the members, which must be promoted by conference and discussion. We are in an era of conventions, conferences, meetings and reunions. The majority of the speeches in this volume were addressed to meetings of one association or another. The officers of nearly every organization, whether it be a group of retail dealers in a city or a labor union, a great trust or a convention of bankers, are supposed to be able to act as its spokesmen as well as its directors. Every important associa-

tion feels the need of a representative who can command the attention of a wider audience than its own membership affords. Our nation is composed of many organizations other than those indicated in its political constitution. Almost all our citizens, women as well as men, are banded together by causes or trades or professions or business into associations whose voices are heard in the forum of national discussion.

In the third place, modern business has been rapidly coming to realize that its management, its principles, even its methods and its profits, are matters of public interest. The day is past when a capitalist could limit his public addresses to the single sentence "The public be damned." The public of our day has demanded that it be taken into the confidence of "big business," and the wiser leaders of our corporations have seen that a frank and free discussion between capital, labor and the public is for the advantage of all concerned. The necessity of such discussion and understanding was felt first in the case of the public service corporations which have grown so numerous and so important—such as, the railways, the street railways, the gas and electric light companies. The debate aroused by the affairs of these organizations is still intense and is likely to continue so for another generation. But meanwhile the public has extended its interest to other concerns—to the sellers of steel and oil and sugar and beef and automobiles. The leader of any great industry is bound to consider not merely how he shall run his business but what he shall say to the public. And in turn the public has become eager to learn not merely the facts about the business but something also of the personalities and opinions of its leaders. A glance at the contents of this volume will be enough to indicate that many of our captains of industry have become highly skilled in addressing the public and that their words are exercising a powerful influence upon the American people.

In the fourth place, the subjects that are before the nation for discussion and decision are largely economic, industrial or financial. Naturally the leaders of business wish to share in this debate. They are no longer willing to leave it to the members of Congress and legislature. Possibly it is true that fewer persons to-day than fifty years ago read the records of our Sen-

ate and House of Representatives, but there are vastly more persons to-day than then who give some heed to the never ceasing discussion of press and platform. Every step in the growth of the press, in the rapidity of communication, in the ease with which large bodies of people can be brought together in assembly, aids in rendering this debate of business questions nation wide. Our pressing problems of the railroads, of strikes, of the relation of labor and capital, of taxation, of the debts to us from our allies, of government regulation, are being debated not only in Congress and in the press but before countless associations, and not only by our political representatives but by those who are still actively sharing in the risks of capital, the responsibilities of management or the aspirations of labor.

The operation of all four of these causes that have pushed the man of business to the platform was at first retarded but finally accelerated by the World War. All the arts of salesmanship were employed in distributing the Liberty bonds. Every existing association lent itself to patriotic service, and the need for enormous economic productivity required an unexampled development of business organization. It became a patriotic necessity that the affairs of many business undertakings should gain the interest and sympathy of the public. And though every issue and difference might be subordinated to the main purpose of winning the War, it soon became evident that, when the War was won, our people would return to an eager discussion of economic, industrial, and financial problems.

It may be asked whether all this discussion affords much genuine eloquence. This is a question which has occurred to many of the gentlemen who have been asked for permission to include their speeches in this volume. They have modestly replied, "We are not orators, we do not make eloquent speeches, we simply say things in a straightforward fashion." It is no doubt true that their speeches are often expository and informative rather than appeals to feeling. The business man is not usually an emotionalist and he is likely to hold his fancy closely leashed to common sense. What are the qualities of modern eloquence? It appeals, we believe, to the reason rather than to

passion and prejudice. It should have the support of ideas as well as of carrying voice and graceful gesture. But eloquence is something more than the sensible and reasonable presentation of facts and opinions. It is the transmission of personality from speaker to audience; and personality is revealed less by the operation of the reason than in the play of the feelings, sympathies and imagination. The eloquent man, whether ancient or modern, whether in business or profession, has the power of conveying his personality to his hearers. The business man who becomes a public speaker must appeal to emotions as well as intelligence. He must seek to win the attention and the interest and finally the sympathy and approval of his audience for himself as well as for his cause. Mr. George Vincent, one of our most eloquent speakers, reports as almost the greatest compliment he ever received the comment of a Kansas farmer at the close of one of his addresses: "He ain't no orator but he's a damned good talker."

No such collection as that presented in this volume has ever been made before. It presents speeches on topics of interest in modern commerce and industry made in almost all cases by leaders in these fields and usually before assemblies representing organizations of business men. The collection should prove of interest to the reading public and especially to young men in business who are ambitious to become public speakers.

The speeches in the volume constitute a survey from various points of view of the economic and industrial subjects which are of most pressing interest at the present time. The larger problems of ethics in business, of the relation of labor and capital and of the financial reconstruction of a war-stricken world, are discussed by those who must take an active part in their solution. And there are many more specialized themes of vital importance. The book becomes an epitome of the world's debate over its business problems.

The speeches are interesting because of the speakers as well as because of what they say. There is a remarkable assemblage of personalities. The leading figures of American and British business are gathered as around a table for a discussion to which the public is invited. How vividly for example the personality of Mr. Schwab is revealed in his talk to the boys

at Princeton on "Success in Life." How vigorously the personality of Mr. Gompers is manifested in his speech setting forth the purpose of the Federation of Labor! The reader has an opportunity to study men as well as ideas.

The speeches may also be offered as examples for the young speaker. The youth of to-day is not likely to have the chance to talk like Edward Everett or Daniel Webster even if he has the ability. The subjects on which he is likely to speak are similar to those presented in this volume. And the methods which will lead to an effective presentation of ideas to an audience are those followed by the business man addressing his associates. It would be going too far to assert that these speeches are models, but they at least point the pathway that must be trod and suggest, whether by their merits or defects, the means that must be practiced and mastered if the young speaker is to contribute to modern eloquence.

Full and practical directions and suggestions for training in public speaking are given in the Introduction which follows, prepared by Dean Joseph Johnson of the School of Commerce, New York University. Further guides and lessons for speaking in connection with business are to be found in Volume XV.

INTRODUCTION

THE BUSINESS MAN AS A PUBLIC SPEAKER[1]

By JOSEPH FRENCH JOHNSON

We often hear it stated that business men are doers, not talkers. The aphorism goes too far. A more correct statement would be that efficient business men are good doers, that many of them are good talkers, and that a few of them are good speakers.

Talk plays a larger part in the conduct of business than is often realized. Any time after the executive has come to business and goes into his office, the young woman at the switchboard is very likely to tell you that he is "in conference." He sees and talks with a continuous stream of his associates, his subordinates, and outsiders with whom he has his business dealings. He talks much, and he talks effectively. Again he must attend oftentimes the meetings of his Board of Directors, and again talk is the medium by which business is transacted. When not in conference or at the Board he is occupied with his correspondence, and transacts his business by talking to his secretary. Apart from the obligation or privilege of attending the Board meetings the work of many heads of departments is exactly parallel to that of the head of the business. Nor can we ignore in modern business the important, and certainly not voiceless, activities of the salesman.

As a matter of fact it is comparatively rare to find a good

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business man who is not at the same time a good talker. He is a good talker because as a rule he knows what he is talking about, and he is perfectly natural and unaffected. Any one who has overheard the conversation at a business luncheon or who has attended the meetings of Boards of Directors will recognize that the business man is ordinarily a master of clear and forcible statement. He is at his best with an audience of one or at the most a small group that can gather around a table or occupy the chairs in his office without bringing in any extra chairs. In other words, his forte is conversation. Enlarge his audience to fifty or one hundred or put him up in a conference hall with three or four hundred people to listen to his words and his confidence often oozes out. He not infrequently halts, stammers and makes an exhibition which is often equally painful to his audience and himself.

Some will say that a cat in a strange garret is always ill at ease and one cannot reasonably expect self-command when you put business men on the platform. What difference, they ask, does it make whether a business man can make a speech or not? Business, fortunately, does not rest like government on the basis of speech-making. This is, of course, true in a measure; but it utterly ignores the important developments in modern day business which more and more present occasions where the presence of the business man on the public platform is a matter of necessity. Business units, for example, have grown so large that mass meetings are oftentimes the only effective means by which under certain circumstances the employer can reach those who are associated with him in business. Then again these business units are coöperating to such an extent that the business man feels that he cannot with propriety decline an invitation to read a paper at a trade conference. He is interested in the welfare of his craft as well as in the prosperity of his own enterprise. The business man is more and more a factor in civic affairs. His presence at the Board of Trade dinner is one sense a part of the conduct of his business. He must be ready to take an active part and to speak if called upon. The schools, civic organizations of all kinds, the Y. M. C. A. and the church are looking more and more to business men for leadership, and these wider duties

of the business man make it necessary for him more than ever before to cultivate the gift of public speech.

The Speech or Paper—Its Parts and Preparation

General.—The tasks of reading a paper at a trade convention or making a speech at the meeting at the Chamber of Commerce have much in common. Most of the considerations which apply to the one are equally true of the other. At the outset then we may properly consider some characteristics of composition that are common to both spoken and written utterances. In so doing we are not unconscious of the fact that there are certain important differences between the two styles of composition.

Whether we are reading a paper or speaking without notes, the first effect is on hearers and not on readers. This is a distinction which is oftentimes forgotten by those who write papers which they propose to read in public. They forget that a certain amount of repetition would be nauseous to the reader of the paper after it has been printed in the transactions of the society, but is very welcome to the auditors who listen to it in the first place. The effective speaker is the man who can clothe the same thought in different ways and bring it out with sufficient frequency that it cannot fail to make the desired impression.

On the other hand, it is not to be forgotten that the speech is freer in form and is not expected to have the same polish or finish that is looked for in the paper. Consequently, while the paper which is written to be read must avoid "vain repetition," the paper which is written to be heard may repeat to a limited degree without offense and the speaker may repeat quite freely.

It is related that an old clergyman gave the following advice to one of his younger brethren. He said, "In preaching a sermon there are only three things to do, first tell the people what you are going to say, second say it, and third tell them what you have said." Of course, the business speaker cannot take this advice too literally. In the days when it originated the sermons were of indefinite length, but the business

man who finds himself on the platform is generally limited either by the conditions of the contract or at least by courtesy to his hearers to a somewhat definite period of time. Yet the remark of the old preacher brings out the three essential parts of any paper or discourse; the introduction, the main subject-matter, and the conclusion, to which attention should be given.

It will be noted that preparation is just as necessary for a speech without notes as for a paper which is to be read. This is not the place to weigh the relative merits of reading and speaking. There can be no doubt that there is a directness and vigor in the speech which is often lacking in the paper which is read. But if extemporaneous speaking has many virtues which an audience would appreciate, extemporaneous thought is an insult to the audience. Whenever, and this is true in a majority of cases, a man has notice that he is expected to speak, it is a duty which he owes to himself as well as to his hearers to give such preparation to his remarks as the occasion demands. A rambling speech is likely to please no one but the speaker. If your only subject is to be out in the open for a certain length of time, you can run your auto wherever it pleases your fancy; but if you want to go to a certain place, you seek the most direct route. There are, of course, certain licensed ramblers on the highways of oratory, such as the well-known Billy Sunday, but they do not speak as business men, and they do not deal with the subjects which a business man is likely to handle when he addresses an audience.

The Introduction.—The purpose of the introduction is to secure the interest of the reader or hearer and enlist his curiosity for what is to follow. It is varied in its possibilities. It may follow the old preacher's advice and briefly indicate the general scope of the argument to be presented. More frequently it seeks to impress upon the reader or the hearer the importance of the topic which is to be considered. It is easier to indicate what the introduction should not contain than to give any specific instructions as to what it should contain.

One of the most common faults of speakers and in a less

degree of writers is to make the introduction too long-winded. It is a peculiar temptation of the public speaker who on many occasions seems under the painful necessity of pawing the air an indefinite length of time before he really grasps the subject on which he has to speak. A writer is more likely to get down to business more promptly. Some introductory remarks are usually advisable, but the best practice is to make them brief, or even to avoid them altogether when time is limited.

The common fault of the introduction is that it is too long, wanders too much and exhausts the hearer before the real subject is reached. To this defect is often added a faulty opening which makes a bad impression. Diffidence and inexperience inclines many men, one might almost say most men, to begin with some sort of apology. Nothing is more objectionable. The speaker should remember if he is before an audience that, like the well-known advertisement, there is a reason. It may, therefore, be worth while to consider a few don'ts in connection with the introductory opening which seem to be perfectly obvious but which are often so violated that their mention is pertinent.

Don't belittle yourself by showing any doubt of your ability to handle the subject. How often do we hear a speaker begin, "I don't know that I am very well qualified to speak on this subject, but—" It is doubtless a feeling of modesty that prompts such an apology, but it is a very unfortunate one. The speaker who uses it disparages his own efforts at the start. But worse than that, and that is what he doesn't stop to consider, he casts a doubt on the wisdom of those who asked him to speak. There is no need of speaking here about the man who directly or indirectly chooses himself as a speaker. He never apologizes for having done so, but these men are few. Most people speak because they are asked to do so, and if those who have charge of the conduct of the meeting have confidence in the ability of the man whose aid they solicit to present the subject, the attitude of the speaker should be to do everything that he can to justify that confidence.

Don't make any excuses for inexperience as a speaker. They are either superfluous or insincere. How useless it is for a man to tell his audience, "I am not much of a public

speaker." If it is true they will soon find it out, if it isn't true and the audience recognizes that fact, the note of insincerity which was attached to the opening will ring throughout the entire subject.

Don't minimize the importance of what you propose to say. If a man is tempted to begin his address with "There is little I can say on this subject," let him resist the temptation. What he should do is to say, "There is one point in this connection that I want to impress upon you forcibly." Whatever he may have to say let him assume that it is worth saying, making no mention of the many other things which might be worth saying which for one reason or another he passes over.

The long and short of this suggestion is that one should be positive and not negative. You may know little about the subject, you may tell it in a very indifferent way and you may touch on only one or two points, but there is no use of advertising such facts. Perhaps if you do not call attention to them others will not observe them. Modesty and humility have their place, but the place is not the public platform. This does not mean to imply that the public speaker should be arrogant in his tone; nothing is more offensive. It does mean, however, that he should have the courage of his convictions and, whatever the circumstances, he should be imbued with the determination to do the best that is in him to meet the needs of the situation as well as he can. Even though he may fall short of a perfect performance his audience will give him the tribute which it is stated was inscribed on a grave-stone in the far West, "He did his damnedest, Angels could do no more." The old preacher's advice that in the beginning you should tell them what you are going to say is good advice. It may be well for you to follow it, but if you do so remember that you are making a business address and not a sermon, and that your first duty to yourself and your audience is to be brief.

Be wary of the funny story introduction. One of the most common faults of unskilled speakers is "a deliberate and obvious attempt to make the audience laugh at the outset by being 'reminded' of some story or anecdote. Humor is fine sauce for a speech, but it must seem to be spontaneous and

natural." The telling of anecdotes assumes a feeling of fellowship and intimacy with your audience, and this cannot exist until you have become acquainted. Many a story which would fall flat as a pancake at the beginning of a speech can, when it clinches your point, be used with telling effect at a later stage.

The Speech or Paper Proper. (a) Need of a Plan.—The first requisite of any speech or paper is that it should have backbone. This is only a figurative way of saying that it should have a definite structure and that its parts should be fitted together in a natural and logical way. But while the idea of backbone is figurative it is so familiar that in slightly different phrasing it has become practically a technical term of composition. How often does the teacher say to the pupil, "First draw up your skeleton"? Again a statement that is vague, indefinite and uncertain is frequently described as spineless.

Plan then is a primary requisite, and too much time cannot be spent in making it definite and precise. For example, the present Report was carefully outlined, and the outline was several times amended before a word of the Report was written. Yet, it did not entirely satisfy the writer and in the course of writing several rearrangements of the material were made. Since the impression made by any writing or speech depends upon the logic, the coherence and the simplicity of the plan, careful preparation cannot be too strongly insisted upon.

The plan should be logical. The cart before the horse places the horse in a useless and maybe very uncomfortable position. Business men as a rule think clearly and they are not lacking in the faculty sometimes described as putting two and two together. But it is sometimes claimed that they are prone to think narrowly and not broadly. It is not only an exact knowledge of detail, but a breadth of view that is necessary to plan a paper or a speech in logical manner with a nice judgment of its parts.

The plan should be coherent. The sequence of subjects should follow in a natural fashion. Otherwise the effect upon the hearer is the same as if he nodded off every now and then, but when he listened found it interesting, but wondered how

the speaker got there. The real test of any spoken effort is whether the wide-awake hearer can give an intelligible account of what was said. If he cannot do so you may be sure that what was spoken was discursive and ineffective.

The plan should be simple. It is very difficult to give continuous attention to anything. It is the temptation of speakers not only to talk too much, but to attempt to say too many things. A few points well driven will be more effective than a large number which are only mentioned. To use a homely expression it is better to have your speech resemble a table fork than a curry comb. If you feel that the subject cannot be properly presented without a consideration of many points, it is well to group them by a few classes and emphasize the classes more than the individual points.

(b) Constructing the Plan.—The points of logic, coherence and simplicity are perhaps well taken, but the question arises: how shall the man of slight experience gain them? The old hand at this sort of thing will probably tell you that he does not know, that he observes these rules instinctively. But that does not help us much. Nor does it enlighten us greatly to have him quote the old saying that practice makes perfect.

The fact is the old stager has forgotten his beginnings. For those who are making their maiden efforts and for many of those of larger experience there is no aid so important as a pencil and a piece of paper. Write down on it what you want to say. Arrange it by catch phrases or by short sentences, and ponder over your list. The probabilities are that you will find a good deal of repetition. Your first task is to eliminate this, and so reduce your notes. By the time you have done this and placed things which are obviously related together you will probably need a freshly written list.

You now have before you a statement of all that you want to say. It is a good plan to write off each heading on a separate card or slip. How shall you arrange your thoughts? The thought elements bring up a series of pictures of the thing as a whole. You can now shift your cards into one arrangement or the other, until you have found that which most strongly appeals to your innate sense of what is logical, coherent and simple.

As you proceed to build along the lines you have chosen, and as you elaborate the headings you have selected, thoughts will come to you that you recognize as new. Do not be carried into digressions. Fit them into the plan, or discard them. They may be very striking thoughts but unless you can make them part and parcel of a definitely defined plan, not necessarily the one you started with, but one equally good, they are only excrescences.

(c) Making the Plan Apparent.—The plan is worthless no matter how closely you stick to it, if others cannot see what it is. At this point it is worth while to emphasize an important difference between what is intended to be read by others and what is intended to be heard by others. Both need a definite plan but it needs greater emphasis in the latter case than in the former.

In a piece of reading matter, the structure is usually indicated by the physical form. Books are divided into chapters, chapters into paragraphs. The Report you are now reading has its structure clearly indicated by the outline at the front. This is again brought to your attention as you proceed in your reading by sub-heads and section heads. Within each section the development of the treatment is still further indicated by paragraphs.

When you listen to a paper at a business meeting or hear an after-dinner speaker you have none of these aids. He does not stop to announce the sub-heads or the paragraphs of what he is reading or speaking. They are most effective when they reveal themselves. The hearer must sense the structure of what goes into his ears. He must see himself how it hangs together. The transitions from one phase of the subject to another must be so sharp and clear that the hearer will realize them. It is probably only in a rather short speech that the hearer can get all of this without some help from the speaker.

When therefore a man reads a paper to an audience or delivers a prepared speech he must not only be fully conscious of the structure of his thought, but he must as he progresses bring that structure to the consciousness of his hearers. He must tactfully reveal that structure either indirectly or directly. If, for example, some one had read aloud to you the preced-

ing section of this Report on the need of a plan, you could immediately give an account of it. You would say perhaps, "After stating the need of a skeleton or plan, the writer stated that it must be logical, coherent and simple and then elaborated each of these points." You need not see the printed page to realize that each of the last three paragraphs begins with a statement similar in form but different in contents. This is only one of many ways of indicating the transition from one thought to another.

Before an audience you may and often must indicate this transition more boldly than on the printed page. Had the treatment in the section referred to been more extended and had it been prepared to be read to a meeting, one might use some such phrase as this: "The first phase of this subject concerned logic, the second on which we are about to enter concerns coherence." It is by bridges such as these that you pass from one aspect to another and bring your passage clearly to the consciousness of your auditors.

The Conclusion.—If you have followed a definite plan as above indicated you will know when to stop because you will know when you are through. When you hear it said of a man that he talks well but he doesn't know when to stop, you will usually find on analysis that he does not talk well, because his talk is formless and planless.

Not knowing when to stop is one of the most conspicuous, common and inexcusable faults of public speakers. "Some speakers make an excellent impression for five or ten minutes and then begin to lose hold of their audience. Such speakers often flounder along, hoping to capture their audience again, and often keep on talking after everybody is bored to death. The speaker should sit down while he has the audience well in hand. A good five minute talk is much better than a twenty minute talk of which only the first six minutes were worth hearing."

Probably the best conclusion is that which follows the old preacher's advice of "Telling them what you have said," provided always that your summing up is brief and pithy. There are speakers who mistake the conclusion for the beginning of a new speech. This is fatal. As soon as you have said, "In

conclusion," there is momentary increase of attention, but it does not last long and you must improve your golden opportunity before it flies.

Bring your remarks to a swift emphatic close, and do not spoil it by the meaningless, "I thank you."

Characteristics

Length.—A somewhat worn and frayed anecdote may well be called into service since, better than reams of argument, it illustrates a cardinal point. It is to the effect that a speaker began his remarks in this wise, "Before I came to the meeting I asked your Chairman what I should speak about and he replied, 'about fifteen minutes.'" In other words there is usually a pretty definite time limit for every paper or speech, and a man owes it to himself, his audience and his associates on the program to observe it scrupulously.

Very often the time limit is fixed by those in charge of the gathering and definitely stated. Such a statement should guide those preparing speeches or papers. But in many cases the time limit can only be inferred from circumstances. It is no less important a duty of courtesy to ascertain what it ought to be and keep well within it. Especially when there is no set time for beginning the talking, as where speeches are to be made at a public dinner, a speaker does well to have elastic limits and adapt them to circumstances. If he is the first speaker he should be careful not to absorb more than his appropriate share of the available time. If the speaking begins later than was anticipated he has the opportunity for the exercise of a fine courtesy, in curtailing his remarks and leaving adequate time for those who follow him.

If the time limits are by the rules of the meeting to be strictly enforced one only causes embarrassment to the presiding officer and oneself by overstepping them. Called to a sudden halt one's presentation is incomplete and therefore ineffective. One hesitates to ask for extra time lest the request be denied. If through the request of the audience or the indulgence of the presiding officer extra time is granted,

the speaker is likely to fumble, hesitate and use it ineffectively.

If time limits are not stated or being stated are not enforced, the speaker who oversteps a reasonable time incurs the enmity of at least a portion of his audience. He can be sure that there are fidgety individuals in it who are covertly looking at their watches.

The old adage that brevity is the soul of wit might be amplified by adding that it is the part of wisdom. Most speeches and papers are too long, and not always because those who make them are unwilling to exercise self-restraint but because they do not know how to do so. Some practice is needed in gauging the length of time which will be required for what one expects to say.

In preparing a paper to be read at a meeting it is a good test to read it aloud, note the time required for reading and allow double this time for reading it in public. This rule may seem unduly cautious, but it has served well in practice. Men inexperienced in public speaking fail to realize that in a large hall they must read slowly or those in the rear will not hear. Even if one knows this it is difficult to realize it in the privacy of one's study and unconsciously one adopts a more rapid rate of reading than would be allowable in a public meeting. Another form of test can be made by ascertaining the number of words one can speak in a minute. Few men can speak more than 125 or 150 words a minute even in the most impassioned speech. For the reading of a paper 100 words a minute would probably be the highest figure which it would be safe to allow.

Estimating the length of a speech is a somewhat more complicated matter. Unless the speech is written out and the thought, if not the words, is memorized, it is always well to go over the matter in private preferably aloud. Allowance for the fact that one will probably speak more deliberately in public will be offset by the fact that before an audience one cannot hesitate, nor can he go back to improve an utterance once made. On the other hand when he gets upon his feet new matters will be suggested to the speaker by the time and circumstances and what has been said before. In preparing his

speech he should make due allowance for this and give himself some leeway.

The more a man has to say and the shorter the time allowed him in which to say it, the greater is the need for careful preparation. Under such circumstances a man should know before he gets up what he wants to say not only in a general way but in detail also. He must stick rigorously to his preconceived plan or he will go beyond the time limit. It is not the place for after thoughts, however striking. They delay the action and lead to surpassing limits or injuring essential parts of his proposed remarks.

The Pronoun I.—In the advice given to those who write and speak there is frequently a great deal of prudery about the use of the pronoun I. If you would believe these counselors, the man who utterly submerges his personality when he addresses the public either through print or through word of mouth is entitled to a crown of glory, while he who uses the first person singular however modestly commits a heinous sin. Surely the case is not so bad as this. No rule of diction can be absolute. Circumstances must guide discretion here as elsewhere.

The letter I is more offensive to the eye than to the ear. It must be used, if at all, with extreme caution in anything which the public is expected to read. The reading public does not visualize the writer. It has little personal interest in him; it is concerned only with what he has to say. It is proper then for a written production to be impersonal, and this rule will apply as well to a paper read to an audience. Not only is it frequently destined to be printed, but the author has by the act of reading placed something foreign, the manuscript, between the audience and his personality.

On the other hand, when a speaker faces an audience and talks to them, his personality plays an important part. It is there for all to see and is not hidden under a bushel. It would be a mistake not to recognize this fact. He has as a consequence a much greater liberty in using the personal pronoun and the personal elements in speech.

When a business man speaks upon a business topic before a business audience, what the audience wants especially to hear are conclusions drawn from experience. They welcome anec-

dotes and illustrations that have a personal bearing. The speaker has a right to assume that the invitation to speak was given because he personally had knowledge or experience which would throw light upon the subject. A wise man, and most business men are wise men, will of course avoid any display of egotism which always displeases one's auditors. But he should free himself from the notion that any mention of the pronoun I is an offense against good taste.

Quotations.—Whatever may be said of the advantage or disadvantage of using quotations from other authors in printed matter, these are awkward to handle in papers which are read to an audience. They are written often in a different style, they are not the reader's own words, and hence he is likely to read them indifferently. Because they are interpolated matter he finds it difficult to resist the temptation to read them more rapidly and less distinctly than his own matter. He himself is perhaps very familiar with the quotation; it is perhaps the starting point of his argument. But the audience which merely hears it does not get it with the force that is necessary to the argument, especially if it is read quickly. For these reasons direct quotation is inadvisable. A paraphrase of what another author has said is preferable if a statement of this author's position is deemed necessary to the presentation. Such a paraphrase partakes more of the nature of argument, and that is what an audience wants to hear. It is always important to remember the fundamental difference between a production which is intended to be read and one that is intended to be heard, and to guide oneself accordingly.

In a speech or address there is little temptation to introduce long quotations, but short, pithy ones are more frequently used. An occasional reference to the more familiar classics of literature may serve a useful purpose, but it is very easy to be pedantic and make a display of erudition that is ridiculous. In a business man's speech upon business, quotations have little place. The hearers are more interested in what the speaker has to say on the topic in hand than what Shakespeare said about something else. On the other hand, they are keenly interested to know what other men of business who are known to them have said. But they like this information, if possible,

to come to them direct as a result of conversation with the speaker, rather than as a quotation from what the speaker has read.

Diction.—Apart from such modifications as may grow out of the fact that certain things are intended to be read and others are intended to be heard, the usual rules of diction concern speeches and papers as well as other compositions. What they are any good text-book on rhetoric will disclose. What the text-books rarely tell is how these rules should be modified for spoken utterance. Thus the rhetoric will tell you to avoid short, choppy sentences and long involved ones, and that you should choose a golden mean between them. The advice is excellent but it is well to remember that in spoken words the balance of choice always inclines to the shorter rather than the longer sentence.

The reason is not far to seek. It is fundamental. It is that the eye can take in much more at a glance and carry the thought longer than can the ear. Long and involved sentences are very obnoxious. They require a greater effort of attention from the hearer than can be reasonably expected. Hence in preparing a speech or paper one must shun long sentences and cultivate short ones. One must always remember that a reader can see, but that a hearer cannot hear the punctuation which marks the structure of the thought expressed. The hearer expects the speech to be direct and forceful and hence the points should be hammered out in short, crisp sentences.

The only advice which one can give a speaker is "Be yourself, be natural; talk to an audience as you would to your intimates." Most business men have no difficulty in expressing themselves in their own offices in familiar surroundings. Just remember that when you get up to speak before an audience you are just the same as before. You cannot change yourself over night to meet a new environment. Do not try to assume any new character unless you need more self-confidence. Talk in your own fashion, and you will find that the necessity of filling a hall with your voice will of itself mold your words into a somewhat more oratorical form than you require in the office. But let this work itself out naturally. Do not try to force it or you will fall into exaggeration and bombast.

Perhaps a word should be said about wit and humor. These are a pleasing addition to any public address no matter what the subject if the speaker is by nature and disposition witty or humorous. If you are not in the habit of telling funny stories in your daily speech and conversation do not attempt to do so on the platform. You are likely to spoil the story and the speech at the same time. Do not tell a funny story merely for the purpose of raising a laugh. You do not want people to go away from the meeting merely with the remembrance of an anecdote of which they say that you managed in some fashion to drag it in. Much better that they should remember the story because it illustrates or reinforces the point you are seeking to make.

Reading a Paper

Requirements of Reading in Public.—A good general rule in reading a paper before an audience is to read to the audience and not to yourself. If you follow this rule you will raise your voice so that the man on the back row will hear just as readily as the man on the front seat. If he cannot hear, he is likely to talk to his neighbor and set up a counter current of sound that will drown the speaker's voice for all except those who are immediately in the front of the hall. It is, of course, bad manners for the people in the rear to talk, but they are often led into it by the negligence of the speaker.

If you raise your voice so that you can be heard you will find yourself speaking more slowly than you are accustomed to do. This is necessary in order that your words may not only reach the rear of the hall but that they should reach that point without being jumbled.

The essentials of reading in public are, then, clear and distinct enunciation, a certain deliberateness of speech, and a sufficient volume of sound.

The Manuscript.—In reading a paper a cause of frequent embarrassment is losing one's place. This can be prevented to a large extent if the manuscript is prepared in a suitable way. In the days when parsons read their sermons you could buy at certain stationery stores sermon paper with the lines printed

considerably wider than those used, for example, on ordinary foolscap. This affords a suggestion for those who use typewritten manuscripts. It is well when papers are to be read in public to avoid the small elite type so much favored for correspondence purposes and to have the paper prepared in the larger commercial type. It is also advantageous to insist upon triple spacing instead of the usual double spacing. These are aids which will greatly facilitate the reading of the paper.

There is also a certain knack in handling the manuscript. When the manuscript lies before the reader on a reading desk it is unwise, after reading the sheet, to lay it aside as is frequently done and pile other sheets on it as the reading progresses. If this is done, the audience will exhibit an undue curiosity in the growth of one pile and the diminution of the other. A much better way is to slip the sheet which has been read under the pile. If the reader desires more freedom than he could have with the paper before him at a desk, he will prefer to hold his manuscript in his hand. For this purpose the ordinary large sheet is oftentimes inconvenient, and speakers find that they can handle a manuscript much more easily when it is prepared on paper of note size.

Theodore Roosevelt often read his speeches from a manuscript of this note size and he had a habit, after reading it, of throwing the sheet over his shoulder to the platform. This might be very well for a Roosevelt, but it is not to be recommended for a lesser speaker. It is a good general rule which runs through all of these remarks to avoid anything which attracts notice to the manuscript and thereby diminishes the attention which is given to the speaker.

Introducing Maps, Charts or Tables.—Quite frequently a paper upon a serious subject requires maps, drawings, charts, or statistical tables, for the proper presentation of the subject. The best way of introducing them is always a puzzle. If they are hung upon the wall before the meeting begins they distract attention from what is being said. If they are printed in smaller form and placed upon the chairs they have the same distracting effect. If the speaker reserves these printed sheets till he begins to talk, and has them distributed by ushers at

what he deems the appropriate place in his discourse this always creates some confusion.

One speaker who has had considerable experience in the use of charts has solved these difficulties in a very happy manner. He has them prepared on large sheets of paper. The top one is blank and the charts are arranged in the order in which they are to be used and fastened together at the top. They stand on the platform on a specially constructed stand, but the audience sees nothing but a blank piece of paper. When the speaker reaches the first chart he whips the cover over the top of the stand. The chart is now revealed and is before the eyes of the people as long as the speaker wishes to talk about it and no longer, for then he whips this over the top and the second chart is on view. It is not necessary to point out the advantages of this procedure: only one chart is on view, and that at the time it is wanted. It can never become a distracting element, because it is seen neither before it is wanted, nor after it is wanted.

It is well to note that showing and explaining charts takes time, and unless this is allowed for when preparing the paper, the speaker can very readily overstep his time limit before he reaches the end of his paper.

Delivering a Speech

Making a Start.—The reading of a paper is a comparatively tame performance; the delivering of a speech is a fight with giants in which the speaker is often worsted. Nervousness, hesitation, awkwardness are the foes he must encounter and sometimes they inspire him with a terror that leaves him tongue-tied. Perhaps they are never wholly vanquished even by the most experienced speakers. Few men are so sure of themselves that they will not confess to a momentary feeling of dismay before they are called upon to speak. They make a brave show of indifference and unconcern when they are being introduced, but for the time being they generally wish that some one else might be in their shoes.

There is only one way in which nervousness and hesitation

can be, for the most part, overcome, and that is through preparation, preparation which concerns the thought and to some extent the words to be used. As it is the first plunge that is most disconcerting many a speaker who would not dream of memorizing the whole of his speech carefully prepares the first two or three sentences. Once launched on his speech it is easy going, but it is most important to secure the right start.

Memorizing.—It is not to be inferred from what has been said that if memorizing the introduction is good, memorizing the whole speech must be better. Nothing could, in fact, be worse than such a course for a speech of any length. The man who ties himself down to one definite set of words is hopelessly embarrassed when the string breaks or slips from his finger. Very often he reaches a state of panic as he searches vainly for the thread of his remarks. But suppose that nothing happens. Yet the fear of disaster haunts him, and no matter how faithfully he may have learned his lines, there is likely to be something stiff and formal in the way he delivers them. The charm of a speech lies in its directness. You cannot be direct if you have consciously put up a form of words between yourself and your hearers.

The only condition under which memorizing or something closely kin to it is justified is for a short speech with a very definite time limit. Because there is such great provocation to exceed the allotted time, one will do well to prepare such a speech most carefully. It is not enough to know what one wants to say, one must know how he wants to say it.

Writing Out the Speech.—If memorizing is not to be commended that is by no means equivalent to saying that no thought must be given in advance to the form of the speech. A man who wishes to be an effective speaker must make the most thorough preparation, be full of his subject, know exactly the points he wants to make and have them firmly fixed in his memory.

If a man has not had much practice in public speaking, he will often save himself from embarrassment, if not from failure, if he writes out his address or dictates it to a stenographer, taking plenty of time and choosing his phrases carefully. Then he should read his speech over several times, but he should

not commit the words to memory or try to deliver the address as written. If a man makes preparation of this sort and has clearly in mind the points he wishes to make, he will make a good "extemporaneous" speech. No really good so-called extemporaneous speech is ever made unless some such preparation has been made in advance.

A man who is prepared will be able to "talk" to his audience and not have the manner of one delivering a set speech, and his audience will be much more interested and impressed than if he reads his address or recites it from memory. Furthermore, during his talk he will use some of the choicest phrases which he carefully thought out while writing or dictating the address.

After a man has had much practice talking to an audience, he will be able to make the necessary preparation very quickly. If he knows the subject he is to talk about, his mind almost instantly decides upon the order of its presentation and when he is on his feet his brain flashes the right words to his tongue just as they are wanted. He is like an experienced chauffeur at the wheel of a car whose eight cylinders are all in tune.

Rehearsing the Speech.—There are many men who find it difficult to express themselves fluently and easily in written form. The act of writing is more or less irksome and they are not quite at their ease when engaged in it. Such men will find greater profit in rehearsing the speech in advance. It is said of Henry Clay that he never made a speech in the Senate unless he had rehearsed it three or four times in the privacy of his room and in front of a mirror so that he could train himself in not only speech but in gesture. One who follows this illustrious example will do well to visualize the audience as far as possible and school himself to continuous speech. He should not go back over what he has said in order to improve it and if he finds himself hesitating he should feel the presence of the audience just as if it was actually there and go right on with his speech as best he may. When he has done this two or three times he will find that he makes no halts or breaks. For every situation he will have created a series of expressions and images, some of which will naturally occur to his mind when he is on the platform.

One might say that it requires an imagination beyond the power of many people to see an audience before him under these conditions. Therefore, many men adopt in the preparation of their speeches the procedure known in theatrical circles as "Trying it on the dog." It is a great help to talk the matter over with a friend and to tell the friend what you want to say, not only for the sake of his criticism but for the sake of training yourself in formulating the subject in detail. Mr. William B. Allison, a prominent member of the Senate for a long period of years, never wrote a speech in his life. Whenever he had a speech to prepare on a topic of importance he spent two or three days in advance making the speech in paragraphs and as a whole to his secretary as sole auditor and critic. In this way he never lacked for words which had been carefully considered and duly weighed.

Aids to Memory.—No matter how well the speech has been prepared the speaker will feel an additional sense of security if he knows that tucked away in his vest pocket there is a brief outline of what he wants to say. There is a familiar tradition that many a speaker writes on his cuff the few points which he would consult from time to time. This is a useless increase of laundry bills and makes an awkward form which deceives nobody. When you consult your notes you might as well do it openly, but let them be notes. Do not, after you have started the speech, apparently extemporaneously, take a manuscript out of your pocket and read the remainder. Let the audience, by your actions, know that you are merely refreshing your memory. If the nature of the subject requires a reference to facts, figures and dates, it is much better to have them on a slip of paper and read them when the time comes than to try to remember them. Obviously, when such a slip of paper is necessary it may contain other useful reminders and the audience will be none the wiser.

Concluding the Speech.—Important as it is to start right, it is equally desirable to end effectively. It is not advisable to rely upon the impressions of the minute for the peroration or conclusion. If you want to bring your remarks to an effective conclusion, you must know in advance just how you are going to do it. No matter what degree of preparation you may have

given to the body of the speech, as to its form, it is always well to have the conclusion most carefully thought out and the concluding sentence at least memorized before you begin.

Delivery.—The first thing that a speaker should bear in mind is the fact that he is not a child to be seen and not heard, but rather to be heard and not seen. His first duty is to speak in a tone sufficiently loud, distinct, and deliberate to be heard by every one in his audience. Whether or not his appearance is pleasing or graceful he may well leave to nature. Let him concern himself in the delivery of his message and give no thought to how he appears.

Most people find it difficult to talk to groups, and they are very apt unconsciously to single out some individual of the group to whom they speak directly. If this is done do not choose a man in the front row, select some one in the middle of the audience, and unless you are sure that your voice fills the hall select some one in the rear and you will be able to tell from his expression whether your words are being heard and making some impression. Of course, to follow this rule too literally would give the speaker a fixity of gaze that is undesirable. He should allow his eye to wander from time to time over the audience. In a large hall he should face directly first one side and then the other, but his selected auditor will always be the focal point to which his attention will be directed.

Gestures.—Although gestures may under certain circumstances add to the effectiveness of a speech the business man will do well to avoid studied gesture. Leave that to the professional orator. A man who is thoroughly imbued with his subject will not stand before an audience like a stick or stone. Involuntarily he will make gestures, but he should not try to force them. Only those which come unbidden will be natural and effective.

Special Occasions

The Chairman.—Any gathering when speaking is to be done requires leadership. Some one must set the ball in motion and keep it rolling. This is the task of the chairman. The chairman will fill his duties best when he realizes that many persons

in the audience regard him as a necessary evil. He is usually chosen for his task because he is a hardened speaker, and there can be no harm in striving to imbue him with a little humility. It is quite important that he should understand that his main function is to sit on the platform, not to stand upon it. Some men do not understand this, and leave the chair vacant when it should be filled. It is well to remind them that when they are on their feet they are not occupying the chair.

The chairman's duty is to call the meeting to order and announce the speakers. Custom gives him a little greater latitude than the train caller in a railroad station, but if he would be popular he must not cut too wide a swath. It is usually his duty before announcing the first speaker to state the purpose of the meeting, why it has been called together, and to dwell upon the importance, timeliness, and interest of the subjects to be discussed. Perhaps one might say that he cannot take this task too seriously, but he certainly can take it too voluminously. No wet blanket is quite so moist as a long-winded and tiresome introduction.

Any general remarks which the chairman has to make should be given before he introduces the first speaker. His introduction of the second and subsequent speakers should be very brief and to the point. He is not expected to comment upon what has been said and interpolate a speech of his own before he gives each of the regular speakers a chance.

When the set speeches are over and general discussion is called for, the chairman can with propriety exercise a considerable influence on the course of the discussion, though it is hardly wise for him to intervene in it except by suggestion. It is, however, frequently his duty to give a summing up and this is an excellent feature if it is done briefly.

The Toastmaster.—There is a difference in atmosphere, rather than in function between a chairman and a toastmaster. The latter is the ringmaster of a circus and it is his duty to keep up the spirit of jollification and good cheer. His introductions of the successive speakers are by common consent a little longer than is customary in a formal meeting. One can't always be funny but here is a situation in which it is proper to pray that one may be as funny as one can. Whether the in-

dividual speakers live up to our expectations or not, the toastmaster is a personage to be heard as well as seen.

No one can give a rule that will make a dull man clever or a literal man funny, but one rule will help the toastmaster. It is to regard your various introductions not as so many separate speeches or stunts but as parts of one speech. Establish at the start some central idea and ring the changes upon it as each man is to be brought forward.

The toastmaster at a dinner should be a man of natural humor and of great common sense. If he possesses these two qualifications, his introductions of speakers will be brief and without undue exaggeration. The model toastmaster is one who makes the speakers feel comfortable, who talks rather than orates, and who performs all his duties so tactfully that the audience forgets him absolutely the moment the next speaker is on his feet.

The After-Dinner Speaker.—The first essential of a good after-dinner speech is that it leave the hearers in a cheerful state of mind. An after-dinner speaker should not read a heavy disquisition. Indeed, he should not read at all if he wishes to make the best impression.

His topic may be one that calls for some serious sentences —one that he cannot properly discuss without making his hearers do some thinking. Yet his entire talk must not be expository, instructive or argumentative. Let him trifle a bit in the beginning and perhaps consign the toastmaster to a very warm place for having asked him to speak on such a very heavy subject. If he has a pet story that will raise a laugh, let him tell it after he has been talking two or three minutes, and let him bear in mind that the story will be most appreciated if the joke in it is at the toastmaster's expense.

Having got the audience into a smiling mood, then let him train his heavy batteries on the crowd and rapidly, impressively, for three or four minutes, bomb the audience with the serious thought or thoughts he wishes to leave in their minds. In the midst of this rapid fire of his heavy artillery, he may suddenly interject another story, illustrating the point he has just made or the one he is about to make. But if he has only one pet story available, he had better save it until after the serious

work is over and then spring it on the audience, so that he may sit down amid laughter and applause.

The after-dinner speaker must remember that "the soul of wit is brevity" and that its essence lies in contrasts.

A Final Word.—As we all know, in matters of conduct and action to do and to know are two very different things. Some do without knowing but the majority know without doing.

A certain man was once asked about his church connection. He replied, "You know I have always been a church-goer though I have never tied up with any particular church. I like to sample them all. Recently I have been attending the Episcopal church and I notice they say at every service, 'We have left undone those things that we ought to have done and have done those things that we ought not to have done,' and that fits my case so exactly that I have concluded I must be an Episcopalian."

Judged by our performance many of us belong in the same class. All that we can hope is to be judged by the charitable according to our intention. If it should be contended that the writer of this Report had failed to follow his own maxims in any respect he will not plead the difference between written matter and spoken matter which has been insisted upon, but rather appeal to the mercy of the reader. He would point to the evidences of his intentions. Throughout the Report runs a definite plan, with appropriate subdivisions to which he has sought to adhere. He has advised through preparation, logical arrangement, adherence to time limits, reduction to the minimum of those parts of the speech which delay action, directness of speech and naturalness of manner. If at the end he has seemed to drag in irrelevant matter about special occasions, it has been because he has chosen to enforce by illustration rather than precept a cardinal and final point, that whatever else a speech may be it should be appropriate, to the speaker, to the subject, and to the occasion.

BUSINESS AND INDUSTRY

ASHFIELD—HOOVER

LORD ASHFIELD

MAN AND MACHINE IN INDUSTRY

Albert H. Stanley, Lord Ashfield, was born in 1874. For twelve years he was general manager of American Electric Railways. He was president of the Board of Trade, London, from 1916 to 1919, and a member of Parliament from 1916 to 1919. He is Chairman and managing director of the Underground Electric Railways, of the District Railways and the General Omnibus Company, London.

The British Science Guild initiated the Conference on Science and Labor held at the British Empire Exhibition at Wembley in May 1924, and carried out the arrangements for the Conference in coöperation with the National Joint Council of the Trades Union Congress and the Labor Party. Lord Ashfield spoke at the third session of the Conference on May 30, 1924. Other speeches before the Conference by Miss Bondfield and Sir Oliver Lodge will be found elsewhere in these volumes.

My subject is Labor and Science in Production. If the fundamental question is stated plainly, can there be any discussion at all that work should be carried out as efficiently as possible, and with the least expenditure of human energy? It may be I should introduce one qualification. The work to which reference is made is the work which we *must* perform; the work by which we earn (as is said) our living. If the work were the occupation of our leisure hours—and upon that I shall have something to say—if it were pastime, there would be a difference, for our whole attitude or point of view would have shifted. What then can I say to open up the matter to you?

I am tempted to go to one of my own companies for an illustration and a lesson. The London General Omnibus Company started with horsed omnibuses, and kept them in yards

and stables scattered about London. At one time there were as many as 1,400 vehicles and 17,000 horses engaged in its services. It was not a scientific business. It was an enlarged and expanded job-master's business but, so far as its facilities were allowed, it rendered a great service to London. But as time went on, the transport of an ever-increasing population demanded something more efficient, and in 1904 the first motor omnibus appeared, and the two-horse vehicle met the 20-horse power vehicle (you will notice how different is the measure) in deadly rivalry. Yet the two-horse vehicle was the only reliable vehicle for many years, and the London General Omnibus Company did not rush after the novelty of the motor omnibus. Then in 1910 the transition came. Horses speedily disappeared, and with them the men who were unable to keep pace with the changed conditions. There was some hardship, although the transition was spread out over a period of two years. But the result was highly beneficial to labor. The horse bus could not travel very far. The horses grew tired. The longest routes were only just as long as a pair of horses could jog or trot from one end to the other and back without undue strain or effort. The motor-bus could accomplish much more without a rest; and so with the new vehicle came first the possibility, rapidly followed by the realization, of the wider area which could be covered, and the outer suburbs first enjoyed their services and the country excursion trips began, and with all this the number of omnibuses went up and doubled itself, and so doubled also the total employment.

All this, while the repair and upkeep of the vehicles was taking place at shops attached to garages scattered over London, following the practice of the old horse-stable days. Each garage was complete in itself with shops, stores, machinery and equipment for looking after whatever were needed by its hundred or more omnibuses. When the experimental period of the motor-bus was passed, and it was possible to determine which type of vehicle was the most efficient that could be invented or constructed within the limits laid down by the police regulations, all the vehicles were replaced by those of a standard type and varied only in minor details. Every garage,

therefore, wanted the same plant, tools and supplies. This position was reached about the year 1914. Then the War came, bringing a severe pressure upon transport undertakings, especially those employing road transport vehicles, for road transport vehicles with their skilled drivers, fitters and repair men were most urgently needed behind the battle fronts.

The Company can be proud of its record, for it sent some 1,500 omnibuses and 10,000 men to the War, organized and equipped, for the most part, out of the Company's resources at a few days' notice. It learned from this trial. It learned how to economize resources and labor; it learned how wasteful it was to continue some 30 independent shops for the upkeep of these vehicles, instead of one central repair factory. After the War, therefore, the engineers of the Company were set to devise the best central factory possible. They were sent to works in this and in other countries to study methods and machinery. In the end the Chiswick Overhaul Works were built. They were opened in June, 1921, and on that date the Company owned or operated 2,860 motor omnibuses and employed about 5,520 men in repairing, cleaning, inspecting and maintaining them fit for the road. Another problem which was dealt with at the same time was the cleaning of omnibuses. Each bus must be washed and put into a tidy condition before going into service each day. The work was done by hand and required a very large staff. Washing machines were installed at the garages, and each bus passed through the machine as it entered the garage after completing its day's work. These improvements increased the output capacity of each employee and resulted in the dismissal of a large number of workpeople. The second result was a very considerable saving in the cost of maintaining and cleaning the omnibuses. The third result was the enlargement of the margin between earnings and expenses. The fourth result was the expansion of the fleet to almost 3,750 vehicles, so that, whereas in 1920 18,000 men were employed, in 1924 24,000 men are now employed. So one result led to another result, and in the end Labor was directly advantaged. In each grade of service more men were ultimately engaged. A further result was that higher rates of wages

were made possible because each man was producing more.

This series of results was mainly achieved by the pursuit of scientific principles in the layout, design and management of the works. The omnibuses were, as I have said, standardized. The problem was, therefore, to deal with the repetition of a process with dispatch and exactness. Special machines were devised to carry out special tasks. For instance, a machine was installed for doing a particular job, and this machine, with four men in charge, performed in twenty minutes what previously it had taken a man working alone two days to do. Careful methods were thought out for the most complicated jobs, and a series of men specialized each to do their part; for instance, for the overhaul of an engine the time was reduced from 85 hours to 29 hours. One simple rule borrowed from the Ford factory in America was, to bring the work to the man instead of taking the man to the work. Moving belts and conveyors were established in lines throughout the factory down which the various components of the omnibus chassis were carried and passed from man to man, the ultimate achievement being that whereas under the old system an omnibus was out of service 16 days for its annual overhaul, it is now out of service only four days, with the effect of automatically increasing the daily working fleet by 100 omnibuses without any increase in the capital invested. These 100 omnibuses afforded employment in themselves for about 500 men on the operating side—almost the same number of men as were dispensed with on the engineering side by the opening of the works.

But here I must pause, for you will realize at once that the 500 men engaged were not the same persons as the 500 men discharged. There is the crux of the problem—the readjustment of labor when the work changes in character. In this instance the difficulty was speedily met by the expansion of the omnibus fleet in numbers; but this might not have been the case, and so I reach a real problem. While there can be no question that the adoption of the most scientific and skillful means of executing work must be beneficial, it does not follow that the new benefits are or can be immediately distributed over the old workers.

The classical example to which economists always seem to resort is the textile industry. When the power loom superseded the hand loom at the beginning of the nineteenth century, during the fifteen years of transition the number of looms remained almost exactly the same; but while the hand looms had employed 225,000 people the power looms only employed 150,000. In the next fifteen years the power looms almost doubled in numbers and became equipped with automatic devices which helped to make them independent of attendants, so that, for all the doubled number of looms, the people employed were only 200,000 and were therefore still less than those who were employed in the hand-loom days. It took fifty years for employment to reach the same level by the expansion of work. This was a tragedy for the worker, a tragedy in its most true sense, for the consequences were inescapable. They were indeed aggravated at the time by needless and shameful abuses, now happily beyond repetition—the abuses of excessive hours, of child labor, of sweated conditions.

But let us look at the other side of the picture. At the close of the hand-loom period the goods produced were about 143 million pounds weight in the year, of which 83 million pounds were exported. The labor cost was 9d. per pound. Fifteen years later again the output was 348 million pounds weight in the year, and the exports nearly trebled to 228 million pounds, the labor cost was then 3½d. per pound. Fifteen years later again the output had risen to 651 million pounds weight, or almost five times, and the exports to 536 million pounds, or almost seven times. The labor cost was then under 3d. per pound, although all this while wages were steadily rising and the hours of labor were appreciably shortening.

With the aid of a dramatist we are able to bring to life again both the contrasted grievousness and hopefulness which marked this critical phase of industrial history. In "The Machine Wreckers," by Ernest Toller, we see the protagonists of the change in the ranks of Labor itself. We see the weaver whose slowly-acquired skill is suddenly not wanted, for whom the machine means unemployment, for whom the machine represents a loss of craftsmanship, for whom the machine means nothing but servitude. He speaks:

This devil Steam
Clutches you in a vice and tears
The heart from out the breast.
And then he saws, and saws, and saws
The living body into pieces.
Charles, you shall be the foot, to tread,
To tread, to tread your life away. . . .
With slackened arms and clouded eyes
And back bent crooked at the mill.
George, you shall be the hand to tie
And knot and fasten, knot and tie,
With deafen'd ears and creeping blood
And dry rot in the brain. . . .

He sees the specialization which reduces humanity to a mere adjunct to the machine.

Then on the other side we see the engineer, the man in charge of the machine, who realizes the potential energy hidden away in it and the beneficial results which will spring from the deliverance of the workers from the extreme rigors of toil, who sees in the machine the conquest of the material world with the vast developments which we now know the machine has created. He sees the skill that will be demanded of Labor under the new conditions, the advance towards a higher scale of labor. He, too, speaks:

You trod the looms like galley-slaves, with limbs
Bent crooked by the load of drudgery.
The engine's your salvation. Even now
The boiler quivers on the glowing coals,
Pregnant with steam! One touch is all it needs!
The engine quickens! Energy is born!
The fly-wheels waken, stretch themselves,
Whirl in a humming melody!
The sliding pulleys try their belts.
One touch! the frame of yarn is warp'd,
Another, and the weft is thrown!
No felting now with weary hands.
The shuttles fly to work, and set
The bobbins reeling fast. One touch,
The engine's tamed. It comes to rest.

It is perhaps the hardest thing of all to see both sides of a problem in which one is personally involved. At this dis-

tance of time it is, of course, easy for us to see it, and that is one of the great values of history. It teaches us to reserve our judgment, and not to stress our personal point of view in current controversies.

We can see now that the machine in all its manifestations was a wonderful contribution of science to industry, and the reward of industry was the enormous expansion of its markets for the cheapened products. So it always is, the ultimate testimony to the fact being the population of these islands of ours, the heart and core of this Empire. For centuries the population was almost stationary at about five or six millions. Then the industrial revolution came of which I have given you one or two glimpses; and decade by decade the population grew, from six to seven to eight to nine to ten millions, from ten millions to twenty, from twenty to thirty, from thirty to forty, and we present to the world to-day the spectacle of a nation not self-supporting, yet masters of, because servants to, a quarter of the habitable world. I will not be tempted to moralize over this spectacle, to allot praise or censure; I will leave it as a fact, for as a fact it speaks for itself.

So far it is clear that the development of the technique of industry has been nothing but advantageous in the long run. Whatever dislocations or mal-adjustments it has caused have speedily cured themselves by the growing demand for goods consequent upon reduced costs of manufacture. From the workers' point of view it has been reflected in an increased standard of wages and conditions of employment. Shorter hours have alone been possible because more could be produced in a given time. From the consumer's point of view—and every worker is a consumer—it has been represented in an increased standard of living. I could wish that the development of the technique of trade and commerce had kept an equal pace with the technique of industry, for of all the dislocations and mal-adjustments that now trouble us the prime cause is economic. The structure of credit upon which the trade and commerce of the world is carried on is a delicate affair. No one quite understands the reasons which govern its growth and shrinkage; no one quite understands the ways by which it reacts in expanding and contracting the volume of manufacture

and, with it, the amount of employment. We cannot yet regulate it as we should like. We cannot yet control it as we ought. If science could discover a curative treatment for the economic ills that beset us, how many of the misfortunes of to-day could be avoided! It is more science and still more science that we all need.

I have so far looked at the effect of science in production, and now I want to look at the effect of this science in production on labor. The first general observation which we may make is, that it has demanded a more highly skilled and specialized labor upon the whole. Yet, even with this demand, room has been found for all classes of labor. For the specialization is intrinsically of two sorts—of men and of machines. The specialization of machines often enough calls for quite a limited measure of ability. It is a specialization which reduces a task to its simplest components and asks a worker to do one or other of them, and which enables the semi-skilled or even the unskilled to accomplish what was the work of the skilled. On the other hand there is the specialization of men which calls for a much enlarged measure of ability, because it places in the hands of a worker responsibility for a complex and elaborate piece of machinery or process. It seeks from a worker a knowledge and experience which only a long apprenticeship and training can satisfactorily give. In the old days it was always possible to tell a sailorman, because his habit and resourcefulness were stamped upon him. I believe nowadays it is always possible to tell a railwayman, for his employment marks him as the possessor of a tradition of conduct and craftsmanship, a tradition which has made our railway record so splendid. If it were not that we are all more or less engineers we should, I am sure, recognize them as a type too.

Bernard Shaw in "Man and Superman" has whimsically touched upon what he calls the new man, the engineer. The motor-car had just arrived in 1903 when this play was produced, and with his readiness to snatch a topical subject and give it an enduring quality, he placed a chauffeur among his characters, 'Enry Straker. 'Enry puts his case briefly to his employer:

You'll get more out of men and a machine than you will get out of twenty laborers, and not so much to drink either.

His employer draws 'Enry's character just as briefly:

Oh, if you could only see into 'Enry's soul, the depth of his contempt for a gentleman, the arrogance of his pride in being an engineer, would appal you. He positively likes the car to break down, because it brings out my gentlemanly helplessness and his workmanlike skill and resource.

This was in 1903, before the Ford car and the motor-bicycle had made every man his own mechanic; and even this transformation is in the main attributable to the intensive application of science to the mass production of motor-cars, of which the Ford car is without doubt the supreme example. The Ford peace propaganda failed; but it is to his credit that by his amazing activity he has, through his cheap motor-car, placed in the hands of the working-classes an instrument which has rendered an immense service in bringing peace to the industrial world in America. The almost universal use of the motor-car in that country has been an effective antidote to Bolshevism. We are still a vast way behind America, where almost every other family owns a motor-car and where motoring has become the pastime of the common people. But we too are moving along. If we have abundant leisure and if we are not in the mood to undertake fresh work, we cannot spend that leisure better than by leaving our cities and towns and going into the country and so remaining in touch with a simpler form of life than that which we are now compelled to live in our vast aggregations of population. The countryside has never been known to breed revolutionaries. It has not the forcing effect of our urban communities.

This is by the way. The point that I wish to make is that in our leisure moments we are all accustoming ourselves to the handling of machinery, and that not of an easy or a simple type if you reflect upon the number of wireless sets which, for mere play, are now being made and used by all sorts and conditions of our people.

So, the epoch of machinery having reached its consummation,

the problem of fluidity of labor is so much nearer being solved. We are more adaptable because we are more educated, more trained. In addition to the detail knowledge of our particular job, we all have the general knowledge that underlies machine jobs at large. We may have been slow at reaching this level. Our educational methods may have been defective. We may have lagged behind the Germans in technical schools and technical training, but we have got there eventually, and it helps to secure us against mishaps and misfortunes when innovations and improvements come. The more we have learned, the easier it becomes for us to learn more.

In conclusion I want to return to the subject of our leisure. That is the gift of the machine. We have reached the eight-hour day, the 44-hour week. Our working hours are ceasing to be the greater part of our life and the all-absorbing. What are we doing with our leisure? Once we served where the machine now serves, and we are become free; but it is a freedom only to serve something else.

With this practical freedom has come other freedoms—of criticism, of thought, of speech; and these have been used to a considerable extent upon the employers. (I speak of them collectively as a class.) The trade union has been Labor's public school. The distinction between employer and employee is not so sharp and clear-cut as once it was; and I, for one, should be glad if the distinction could be still more obliterated. I could wish that Labor would use its leisure to learn the wider scope and nature of the business or industry in which it is employed, to interest itself in the difficulties and perplexities of those whose duty it is to manage the business or industry, to give them sympathetic support at times, and in putting forward labor's own demands or grievances to remember that the managers are not dictators, able to do just as they would like, but are governed by economic laws which, if they fail to observe, may extinguish them. I am sure such a course would be helpful towards a better understanding and would widen the outlook and moderate the judgment. What is wanted is a new form of service, the helpful, unpaid service of an understanding and considerate staff.

With this practical freedom has come political freedom too.

We have been made active citizens in the State and in the Empire. Here is a new field of service just as full of hard labor, just as exacting of strict discipline as the old field of industry, and I for one should like to see Labor in this new sphere seek the aid of all the sciences that help to mastery. The answer to the difficulties of politics and statesmanship, as well as those of industry, can only be won through scientific method, scientific analysis, scientific pursuit.

WILLIAM WALLACE ATTERBURY

THE PUBLIC CAN SECURE THE RAILROAD SERVICE IT WANTS

William Wallace Atterbury was Vice President of the Pennsylvania R. R. in charge of operations from 1912 until he became president in 1925. He was born in New Albany, Ind., in 1866, graduated from Yale in 1886 and began his connection with the Pennsylvania R. R. as apprentice in the Altoona shops immediately after his graduation from college. He served as road foreman, assistant engineer and master mechanic before his promotion to the general management of the great railway system. During the War Mr. Atterbury had charge of the construction and operation of the United States Military Railways in France and was commissioned Brigadier General U. S. A. and received the Distinguished Service Medal as well as decorations from England and France.

For many years the railroads have been a subject of public debate and discussion in this country. That debate is by no means finished, although it has perhaps reached a climax in the years since the Great War. Mr. Atterbury has taken prominent part in this debate, and no one is better qualified to speak from the point of view of the railroad executives.

This address was delivered before the eleventh annual convention of the National Retail Drygoods Association held at the Hotel Pennsylvania, New York City, on February 10, 1922.

Our railroads are so intimately a part of the social and economic life of every citizen of our great Commonwealth, that I welcome the opportunity of talking to an organization which through its ramifications can carry a message to every point in our broad land.

I want first to impress upon you that my problem as a railroad officer is also your problem. You are vitally interested personally in efficient and economic railroad service. You must largely travel and you must in the main transport your goods by railroads.

You are vitally interested in the financial soundness of the railroads: directly, if you own railroad stocks or bonds; or if not, then indirectly, through your life insurance, fire insurance, savings banks and mutual protective associations, because the large proportion of their assets is railroad securities. You should not overlook this personal interest.

Ordinarily the average business man thinks very little if at all about the railroads until something happens that causes him inconvenience, or loss, or delay. He accepts the routine of railroad service as a matter of right and custom. As a fundamental proposition he wants uninterrupted adequate service at a reasonable price.

It is usually, however, only when that fundamental need stares him in the face—as it is bound to do when business gets a good start on the upgrade—that he takes an interest. Then he becomes insistent about what he wants, and scatters his condemnation about promiscuously enough, but generally it is centered upon railroad management.

The railroads are to-day suffering from exactly the same causes that are affecting all other lines of industry.

Through the destruction brought about by the War and its aftermath, the purchasing and consuming power of the world as a whole, which is so essential in our prosperity, has been crippled at a time when our own production capacity has overrun our own consuming capacity.

There can be no hope for the return of real prosperity until the world in general finds political and industrial peace, and the general interchange of commodities between the great countries of the world is resumed.

Our effort to-day, therefore, in the transportation world, as in the industrial world, should be that when that time comes we shall be prepared to meet the most extreme competition of the outside world.

Before the War at least 10 per cent of our population was directly dependent upon and supported by our export trade. In order to use the capacity of our industrial plants and to give full employment to our workers, we must make every effort to hold our own in the markets of the world. That is possible

only if the cost of production be can brought into line with existing conditions.

To that end the prerequisites are that waste and extravagance be eliminated, the cost of production brought down, and both capital and labor recognize the need of adjusting their respective compensations to the competitive conditions which the country will have to meet.

All of us will be better off by getting away as soon as possible from the artificial plane which has been of genuine benefit to no one and has done great harm to a large portion of our population.

Into the cost of production of everything, transportation charges necessarily must enter, and transportation must do its share of deflation.

A study of readjustment processes indicates that the price of every commodity has been heavily reduced; transportation, coal and the building trades are the outstanding exceptions.

It may be of interest to this Association that the Bureau of Labor Statistics, U. S. Department of Labor, gives as the index figure for the cost of clothing in December, 1921, approximately 185, as compared with 100 in 1913—the cost of living as a whole is 174—while railroad wages, using figures compiled by the Interstate Commerce Commission, upon the same basis, will probably show for the end of the year 1921, when the statistics have been entirely compiled, 205.

Freight rates, which are such a large factor in our business life, have been measurably adjusted, but still remain at too high a level. Manifestly there can be no return to normal business conditions until the price of transportation bears a proper relation to commodity values.

The business of this country has been developed on the wide distribution of commodities, encouraged by freight rates that bore a proper relation to the prices of the commodities, and as these prices fall, so should rates be adjusted.

Demands for a reduction in rates are now becoming almost universal. The railroads are accused of hiding behind the two provisions of the law—one creating the U. S. Railroad Labor Board which has jurisdiction over wages, and the other directing that rates shall be so made as to bring a certain net return

—and that our railroad executives prefer rather to operate under false economic conditions and pass the cost on to the public than to stand on their own feet and battle without Government protection for a return to normal conditions.

A general reduction in freight rates will not of itself restore business to normalcy, nor can a general reduction be demanded of the carriers in the present condition of their revenues. At the same time, it is beyond question that there are situations where reductions might be made.

The railroad companies are not interested in maintaining rates under which traffic cannot move, and have made many reductions for the purpose of stimulating traffic.

The railroads are vitally interested in an early return to a proper ratio between commodity values and costs of transportation. In fact, if the present condition of high rates long continues, many industries will be re-located at points nearer consumption, the railroads losing traffic, and the industries their investment.

Unfortunately for the railroads, in addition to the world-wide causes, they are suffering to-day from a cause which has not affected industry in general. Industry has been permitted to sell its product at a price which covered not only the cost of production sufficient to pay in most cases handsome dividends, but also to permit of the accumulation of a surplus. This surplus permits the ordinary industry to deflate and still remain solvent.

The railroads, however, for years have not been in a position to fix the selling price of what they manufacture, and gradually through regulation and legislation, have now lost control of a large measure of their cost of production. As matters stand to-day, 90 per cent of the income of the railroads and 75 per cent of their outlay are governmentally administered.

As a result, the railroads to-day have practically no surplus other than that invested in their property, upon which to bear the cost of the necessary deflation in rates that should go along concurrently with the deflation in the prices of commodities.

Wages, which form between 50 per cent and 60 per cent of their present expenses, have already been slightly reduced, and that saving has largely been passed on to the public. We are

now before the United States Railroad Labor Board requesting them to authorize a still further reduction in wages; one which will correspond to the reduction in the index number of the cost of living and to the wages paid in other industries. The railroads have agreed to pass the pending wage reduction on to the public in full.

Another source of expense that should be largely wiped out is that following the result of regulatory and restrictive legislation.

The Interstate Commerce Act, approved February 4, 1887, has been continually amended, each amendment bringing with it more and more restraint, and leaving to railroad managers less and less initiative.

Coincident with these amendments came state legislation creating the Public Utilities Commissions, designed to do in a small way what the Interstate Commerce Commission was doing in a large way. Always there was growing the ever-swelling stream of legislation of a restrictive character, some fanatical, some political and some utterly selfish, but all tending to increase the cost of operation and lessen the initiative of the management.

There came a veritable avalanche of regularity legislation: —Safety Appliance Acts, Hours of Service Act, Employers' Liability Act, Ashpan Act, Clayton Anti-Trust Act, Headlights, Fire Doors, Transportation of Explosives, Adamson Act, Railway Mail Service, Full Crew Laws, Bills of Lading, Boiler Inspection—and so on—some good, the majority bad, but all working to take away from the management actual control of the operation of the property.

Now let's see how you have profited by "regulation."

Note for example the following increases in transportation rates between unvarying points since 1914: [The speaker quoted rates on various commodities showing increases averaging over 100 per cent. For example, the rate per hundred pounds on shoes from St. Louis to New York has increased from 87½c. to $1.84½.]

Now, let's see the effect of "regulation" on the owners of the property.

The average value of the stock of the Pennsylvania Railroad, high and low, for 1900–01–02, was 74. To-day it is 34.

The operating ratio average for these three years was 65.5. For 1920 the operating ratio was 105.2—for 1921, 86.

During that period the Pennsylvania Railroad earned as net income per dollar of capital stock approximately 12 per cent, half of which was paid out in dividends at 6 per cent, and the other half put right back into the property. In those days the slogan was "A Dollar for Dividends, and a Dollar for Improvements." For the year 1920, after paying the same rate of dividends, there was but six-tenths of one per cent put back into the property, while for 1921 not only was no money from surplus put back into the property, but we barely earned the 4 per cent dividend that was paid.

After twenty years of regulation, the public finds itself compelled to say one hundred per cent increase in freight rates; railroad efficiency by virtue of the same influence has been reduced, and railroad securities under pressure of decreased earnings are forced down to such unprecedented levels that managements are unable to obtain aid through the usual channels of popular finance.

From this it is quite evident that neither the owners of the property, nor you the users, can be, nor should be satisfied with railroad transportation as it exists to-day.

You, the public, who have assumed the functions of the management through your legislative and regulatory bodies, are responsible, nor can you evade your responsibility. Cassatt, Hill, Harriman, and the others, all prophesied what would happen. Nineteen seventeen was but the culmination of twenty years of starvation and regulation. Then you tried "Government Ownership," and then for a few months you tried, through "Government Control," to let the employees run the railroads through their labor organizations.

Government control, to the extent which regulation has brought it, is a failure. It will never be a success. It squeezes out individual initiative and opportunity, individual rewards and punishments; nobody has a free hand, no individual is responsible. It decides economic questions politically.

Nothing can take the place of individual initiative, ability and responsibility. We are trying to keep them in railroading while introducing the profit-limiting, opportunity-limiting,

initiative-limiting political control which automatically drives them out. The experiment is a failure. It will continue a failure. Under it the railroads can neither attract the private ability nor the private capital that they ought to have.

The railroad problem is to-day more political than economic. Government interference has dried up the sources from which railroad management built its colossal structure. Investment capital is always shy of political control. . . .

You must, of course, supervise your common carriers in the interest of the public that they may not deal unfairly with you, and you must also, so far as is reasonable and possible, see to it that your policy toward them is liberal enough so that they may not be deprived of the ability to make a living—this that they may continue to function and give the public the transportation service it must have; but you must not think you can continue the policy of private ownership and at the same time regulate every railroad method and operation and still expect them to continue to show enterprise and initiative. Too much protection and too much regulation are disastrous.

Railroad rates and fares should be designed to yield the Railroad Companies aggregate revenues which will provide (after allotment has been made for Renewals and Depreciation) such net return upon a fair value (determined by public authority) of the property devoted to the public use as will be sufficient in amount to enable the carriers to obtain at reasonable cost the capital required to furnish the public with adequate facilities and efficient and economical service.

The power to initiate rates should be with the carriers, and no body, national or state, should have the right or power of suspension.

There is no thought to relieve any of the regulatory bodies of the responsibility which they have to fix penalties for unjust discrimination or improper practices, or the power eventually to decide as to the reasonableness of a rate.

The police powers should be such as would permit the punishment of the railroads when guilty of wrong, in common with all other business.

This so-called railroad problem will always be with us unless the public and especially the business men of the country insist

upon a course of action that is constructive on the part of the government toward the railroads, and then coöperate with the railroads themselves in making it effective.

You are confronted almost daily in your newspaper with misinformation about past and present railroad happenings disseminated by persons and organizations that have absolutely no interest in railroad progress or the kind of service the public is entitled to.

What is the purpose of such mis-statements? Is it to make railroad service any better, any cheaper, any more adequate?

Apply the acid test of common sense to things that are being said about our transportation system and the men who operate it. It is to your interest to know not only what is said about them, but why, and for what purpose.

I know of no surer way of making present-day railroad regulation what it ought to be than for the public to fully understand what is going on in the railroad business.

Railroads are only regulated because you want them so regulated or because you have failed to express exactly what you do want. Your representatives in Congress legislate and your public regulatory bodies act as they believe their constituents demand. Under our system of public regulation, you men cannot escape responsibility.

In my judgment, the solution is a simple one but it requires your whole-hearted coöperation, and that of every other citizen.

1. Enable the railroads to get on their feet financially, to restore their credit and bring their properties up to a state of development sufficient to meet the growing needs of the country.

2. Permit the railroad officers to run their railroad business without being manacled by a mass of restrictive and unnecessary regulation.

3. Back up the railroad officers in their efforts to cut down the cost of transportation, and make the service responsive to the business needs of the country.

LEO HENDRIK BAEKELAND

THE ENGINEER

Mr. Baekeland's career is a notable example of the union of science and business. He was born at Ghent, Belgium, in 1863 and received degrees of B.S. and Sc.D. at the University of Ghent. When he came to this country in 1889 he was already a distinguished chemist. For thirty years he has been one of the most prominent American inventors and chemical engineers. He invented the Velox paper which he sold to the Eastman Kodak Co. He is also the inventor of Bakelite and President of the General Bakelite Co. He has been a member of the Naval Consulting Board since 1915 and was actively concerned in the researches relating to the manufacture of high explosives during the War. He has received many medals and other awards for his scientific services and was a member of many learned and professional societies. He is Honorary Professor of Engineering in Columbia University. This address was delivered at the joint meeting of the American Chemical Society and the Society of Chemical Industry (of Great Britain) New York, September, 1921.

The forces of nature are the most enduring wealth of mankind. To know their laws and to learn how to apply them has made of a puny little being of about 130 to 200 pounds of flesh and bone—three-fourths of which is merely water—a giant of which Gulliver's tales have no equal; and compared to which the largest and most muscular animals of present or former geological periods are merely drowsy, clumsy creatures. All this has been accomplished by his few grams of better brain-matter, which permitted him to gather scientific knowledge and thus to wield powers akin to those attributed to some of the gods of antiquity.

But the forces of nature, in wrong hands, can be diverted from their very highest purposes into the basest demoniacal utilization.

During the late War, one of the nations reputed for its scientific knowledge, staggered history by the wholesale, unscrupulous utilization of science and engineering in attempting to extend and perpetuate an anachronistic and domineering system of government. The other nations, in trying to withstand this onslaught upon right and decency, were in their turn compelled to enlist the talent of scientists and engineers alongside the efforts of soldiers and sailors.

And now, thank God, we chemists can turn again to the sphere of action where we truly belong. We can try anew to become apostles of construction instead of destruction; soldiers of progress, of peace and happiness.

Unfortunately, this does not mean to say that *all* which *all* chemists accomplish is *always* dictated by such lofty motives; no more than literature, or art, or religion is never debased by low aims.

Whatever else this War has brought forth, it has at last taught the ignorant multitude that, in our modern complex civilization, chemists are as indispensable as engineers, notwithstanding the fact that the lawyer-politician still holds the floor.

Nor should the public be blamed too much. The work and purposes of the chemist are not easy to understand for the average man or woman, too often devoid of even rudimentary scientific knowledge, although in some cases they are the bearers of a college degree earned by a one-sided exclusively literary education.

What appears even less obvious, even to the better informed classes, is the relation of the chemist to the chemical engineer. It is less known that a man may be a scientific star of the first magnitude and yet be incapable of utilizing his science in the industries, or of applying it in the many other ramifications of the economics of our civilization—not to speak of the recent applications of science in war. It does not seem obvious to many that there is the same difference as between a good grammarian or philologist and a successful writer, be the latter a novelist, an essayist, a journalist or a playwright; that a learned botanist will not necessarily make a successful farmer, no more than a mathematician will surely prove a good

accountant, nor a good accountant an able business man, nor a philosopher a successful statesman.

After a geologist has revealed and surveyed a body of ore in the mountain, the mining engineer and the metallurgist know very well that this does not necessarily mean a paying mine, or a successful smelting works.

So it is in chemistry. The experience of many a scientist has been confined exclusively to laboratory works, or to purely chemical subjects. This is frequently the reason of his weakness in dealing with practical matters, when he is inclined to concentrate his point of view too much on only a part of the subject with which he is confronted. He is apt to neglect other considerations which although seemingly unimposing from a scientific standpoint, frequently carry with them the very elements of success or failure in practical applications.

When, during the War, the problem came up to start the manufacture of optical glass for gunsights and other instruments used in our army or navy, it was easy enough to take care of the chemical side of this subject after raw materials of sufficient purity had been obtained and as long as the glass was produced merely in quantities of a few ounces where the mass could readily be melted in platinum crucibles. But when it came to produce tons of homogeneous optical glass for real wholesale use, then the most tantalizing problem resided in the proper construction and handling of large clay crucibles; this for the simple fact that the molten glass dissolved the clay of the pots and got spoiled by taking up impurities, in the same way as water would dissolve a container made of sugar or of dried mud.

Many a chemical reaction brilliantly successful in the laboratory as long as the operation could be limited to small quantities and carried out in glass, porcelain or platinum vessels, has been doomed to failure when attempts were made to run it on a permanent commercial scale. It needs quite some experience and a good deal of common sense to know when it is cheaper simply to burn up sawdust waste instead of trying to distill it or convert it into pulp, and to know when it is cheaper, for this purpose, to buy expensive wood in the shape of clear logs. It requires quite an effort of good judgment to know

when it is less ruinous to burn waste flax straw from our linseed fields than to try to spin or weave it; to know when it is less injurious to one's bank account to leave natural soda and potash salts in lake water instead of obtaining them by the usual processes. That Boston clergyman of about twenty years ago may have had correct chemical information when he started that company for extracting the limitless tons of gold naturally contained in sea water, but if he had been just a little of a chemical engineer, he might readily have concluded that it was cheaper to leave all that gold in the ocean than to try to extract it by methods which cost more than the value of the gold.

Then again, there are cases where even the best of chemists committed errors of judgment and failed to solve problems because they lacked the daring of the engineer.

Sir Humphry Davy, one of the greatest chemists of his age, showed his lack of qualifications as a chemical engineer when he reported unfavorably on the project to use coal gas for the illumination of the City of London. One of his most emphatic objections was that it would require a gas holder as large as St. Paul's Church dome, and even after this was constructed, it would blow up at the first opportunity.

As an opposite example, I should cite the great Belgian engineer, Solvay, who revolutionized the manufacture of soda, one of the chemicals most indispensable to civilization and used in enormous quantities. His success was mainly due to the fact that he was more of an engineer than a chemist. In developing his process, he was unaware that this reaction was not new; that it was so old and so well known that several patents on this very subject were already on record and that, furthermore, the process had been tried commercially about half a dozen times in several countries, and had invariably been unsuccessful. Fortunately, all this discouraging information reached him only after his keen engineering talent had already demonstrated that this elusive chemical process could be controlled in the hands of an engineer and made to operate so successfully as to throw in the scrap heap the older processes used until then.

The pure chemist, confined by the walls of his classroom, his laboratory, or his library, sometimes fails to exercise sufficiently the sense of proportion.

Nor are the engineers, as a class, free from being carried away by a one-sided point of view, although their way of reasoning and grappling a problem is more along quantitative considerations.

The ways of thinking and acting of a chemist and those of an engineer are often along decidedly different points of view. Yet, if these points of view can be compromised, or harmonized, they bring forth good chemical engineering. Nor is this always an easy task. Too often I have seen cases where the engineer, regardless of well-established chemical facts of which he was conveniently ignorant, diligently went on designing the most elaborate and ingenious equipment, giving minute attention to every structural and mechanical detail, and then handed plans and specifications to the chemist to leave the "chemical details" of the problem to the latter. These "details" consisted in specifying a material about as strong as steel, resisting strong acids or other very corrosive agencies, extreme heat, and which should, furthermore, be furnished at a price about that of steel or bronze. When the chemist meekly answered that he knew of no material that would answer the purpose except platinum, iridium, or possibly gold, the information was received with a look of contemptuous disappointment on the part of the engineer.

Simple as it sounds, it requires quite some experience, quite some common sense before the chemical engineer knows when to specify stoneware instead of lead, or other metals, or *vice versa,* or to learn how to alter the design of an equipment so as to make it adaptable for each of these different structural materials. I well remember the look of disgust of an engineer who had drawn his specifications of heavy stoneware to within one sixteenth inch of margin, to find out when the apparatus was finally delivered, at the end of several months' drying, and baking and waiting, that the dimensions had warped several inches and did not fit with the other parts of the equipment. That very day he learned that it pays to order his stoneware a long time in advance and to wait for its delivery before ad-

justing the final designs of the adjacent equipment according to what he got from the pottery.

In another case, a chemical engineer made a success of a different problem of pumping a corrosive liquid where delicate pumps made of expensive alloys or stoneware were most of the time out of order, until he superseded them by home-made pumps made of cast iron or cement. They corroded very fast, but their construction and replacement were so simple and inexpensive that he could afford to replace them rapidly with much less the trouble or cost.

In many chemical industries, after once the initial chemical problems have been overcome, the manufacturing problems resolve themselves to cost of operation and mass production. No wonder then that in such industries the engineer's problems seem to dwarf those of the chemist to such an extent that sometimes the manufacturers seem to be astounded when one reminds them that after all their enterprise is essentially chemical. This is of little consequence in so-called "prosperous" times, when orders are abundant, profits considerable, and when the main problem is one of output. In times of keener competition the unchemically trained directors of such enterprises are sometimes unpleasantly reminded that they need clever chemists as well as good engineers and business men and that, while they were asleep on this subject, their keener competitors have been improving their industries along chemical lines.

To the wide-awake manufacturer, the present industrial depression should be an incentive to engage more chemists, to do more chemical research work, instead of laying off the men of their chemical staff, as has happened in too many instances since we got out of that fool's paradise of so-called "prosperity."

Most of our industries badly need "fertilizing" and fertilizing is better done while the land lies fallow than during planting or harvesting time.

Whenever I see such shortsightedness which is bound to stunt our industrial efficiency for the future, then I wonder whether some of the financial or business men at the head of large industrial enterprises are not occupying their position on an assumed and unearned reputation.

Some of our industries are more particularly adapted to our country on account of an exceptionally abundant supply of the raw materials they employ; this gives them at once a distinct advantage over other countries which have to import these raw products. But precisely in some of these industries, the chemical point of view has been much neglected, except in minor details.

For instance, we have that enormous industry of petroleum refining. Ever since petroleum was first discovered, the processes of rectification have not varied much from the general methods of fractional distillation by which different compounds are separated by order of volatility in light hydrocarbons of the gasoline type, somewhat higher boiling liquids of the kerosene type, then lubricating oils, vaseline or petroleum jelly, and the least volatile and hardest of all, paraffine.

It is true that in this general process of distillation, improvements have been introduced from time to time. For instance, the intermediate treatment with sulphuric acid, then later the destructive distillation at higher temperatures of the so-called "cracking" processes which break up the more complex hydrocarbon molecules of the heavier distilling liquids and thereby increase the yield of the lighter and more valuable gasoline.

Nevertheless, the fact remains that aside from a relatively small proportion of lubricants, the bulk of raw or refined petroleum is burnt as a fuel. This burning may be done directly in oil burning furnaces, or as refined kerosene in our lamps, or as gas from our gas works, or by a much more efficient way, in our internal combustion motors, varying from the smallest motorcycle engine to the Diesel generator.

There was a time when coal also was exclusively used as a fuel until the chemist succeeded in converting one of its least attractive by-products, coal-tar, into a series of the most startling syntheses, which opened an entirely new field in chemistry. These coal-tar derivatives include not only an endless variety of dyes, but the many other valuable synthetic substances used in the art of healing and sanitation, as well as the newer synthetic resinous products which have opened new possibilities in electrical insulation and numerous other industries, and the chemicals which are used in the art of photography. Nor

should I omit to mention the new explosives obtained from the same source, and which are safer and easier to handle than dynamite or gunpowder, and which find greater and more lasting applications in mining, agriculture and engineering than in war. Agents of foreign interests had long ago started a propaganda campaign among our teachers of chemistry as well as among our congressmen and manufacturers, making them believe that the United States was not suited for this industry of coal-tar products, and that Germany could better supply us. But the War awakened us from our torpor when we were confronted by the fact that the coal-tar derivatives were the indispensable key to many of our most important industries and that the War could not be won without them, and that Germany had lulled us into inaction until, in experience, we were a full generation behind her. By supreme efforts, our chemists and business men overcame this fearful handicap; this achievement remains one of the most brilliant pages of our national history. And now it looks as if shortsightedness and politics were about to destroy what had been raised after so much effort.

But let us return to the subject of the petroleum industry. The abundant existence of this raw material, as well as natural gas, in America is mainly due to the special geological history of this continent. Geological changes here have been less violent, less metamorphic than in Europe or most other countries, so that the geological deposits or stores of these rather fugitive materials have been less disturbed, less broken up by subsequent upheavals.

Especially in natural gas do we possess a raw material which almost exclusively belongs to this country. When we reflect, however, that this raw material cannot readily be transported, we should seek methods to convert it into other commodities which lend themselves to easier transportation.

If we have acted as spendthrifts with our coal and petroleum, we have behaved as barbarians with our natural gas resources until there is little left of it. Yet natural gas contains valuable substances which under the hand of the chemist may be used as a starting point for syntheses perhaps more valuable than what has been accomplished with coal-tar. While the

period of brutal waste is not yet ended, the dawn of a more enlightened utilization seems to be in sight. I learned recently that at least one of our more progressive and better organized industrial enterprises has undertaken the problem of more methodical use of natural gas along scientific and chemical lines. From the results already obtained, there is good hope that some day our natural gas resources may provide us with new synthetic products which may open entirely new possibilities in various other industries. I should add that the company in question, notwithstanding the present business depression, has not discharged its research chemists. On the contrary it has recently added considerably to its research staff and equipment, although endeavoring to cut unnecessary expenses in other directions.

Industrial alcohol is another chemical industry in the United States which seems susceptible of an incomparably wider development as soon as it is less hampered by fanaticism in a more efficient commercial production and easier distribution. The ignorant multitude does not class alcohol as a chemical industry. Most people cannot see in alcohol anything but its use or abuse as a beverage.

And yet, outside of such cases, there is hardly a chemical susceptible of wider and more beneficial application in the arts, the industries and the household economics. Its value as a solvent, its use in varnishes, artificial leather, smokeless powder, is well known among chemists. But a much more extended use is possible as a liquid fuel. The fact that it is far less volatile than gasolines and mixes readily with water, makes it not only cleaner, but incomparably less dangerous, whether it be used in the household for heating or illuminating purposes, or whether it be used on a motorcar or a motorboat, or stationary engine.

Furthermore, its sources of supply embrace all inexpensive starch- or sugar-containing vegetables, as well as the waste of our sugar refineries, all products of which this country has a prodigious supply.

Converting our perishable farm products into products like alcohol, which can be stored indefinitely and of which the transportation and handling are easy, is one of the ways of

equalizing the uncertain fluctuations of the yield of our crops.

Long after every drop of petroleum or gasoline will have been extracted from our wells, every yearly agricultural crop will insure us a new supply of this valuable liquid fuel obtained by fermentation of starch- or sugar-containing liquids. I know of no country where there is such an abundant source of supply, as well as the industrial opportunities in conjunction with an extensive market within easy reach, provided industrial alcohol can be furnished to the consumer at a low enough price.

But unintelligent application of the Prohibition Act will offset all this, whatever good effects it may try to accomplish in other directions, by putting unnecessarily exaggerated restrictions or handicaps upon the manufacture or distribution of industrial alcohol.

Few people realize that the price at which alcohol can be delivered to the consumer at a profit is considerably influenced by whatever unnecessary red tape impedes manufacture, transportation or distribution. The well-intentioned manufacturer who is endeavoring to lower the cost of production, feels his efforts rather futile when they are wiped out at the selling and distributing end.

There is opportunity for considerable improvement in the technical end of this industry in the United States. In this respect, France and Germany were able to furnish better and cheaper alcohol than we were, because in those countries the industrial alcohol situation has always been more considered on its own merits. So has it come to pass that this branch of chemistry or chemical engineering has attracted fewer of our better scientists or engineers in the United States than in other countries. Justly or unjustly, this whole industry has been under the ban of social prejudice on the part of people who, in their zeal, cannot discern betwen the drink evil and an indispensable chemical industry.

Yet, no less a man than the great Pasteur counts among the many illustrious chemists, biochemists and engineers, who have contributed to the development of the alcohol industry. It was Pasteur, while he was professor of chemistry at the University of Lille, who by undertaking to correct irregularities in the fermentation processes of a local distiller, discovered the funda-

mental truths relating to the phenomena of fermentation. Under his genius, the knowledge gained thereby became the starting point not only of radical improvements in the manufacture of fermentation processes, but they brought forth a veritable revolution in sanitation, surgery, and medicine. All this has sowed broadcast inestimable benefits on mankind, and has made the name of Pasteur sacred to every one who is not too ignorant to know something about what he has done for humanity.

If every annual crop of starch- or sugar-containing plants can furnish us an abundance of liquid fuel and solvents under the form of alcohol, we may look at this from another point of view and call it simply the stored-up energy of the sun. The photochemical action of the sun rays under the influence of the chlorophyl, or green matter of the plant leaves, brings about the most subtle creative chemical synthesis. Carbon dioxide, a product of combustion, one of the ultimate destruction products of plant or animal life, combines with water under the action of sunlight. Dead matter reënters the process of life. The first, or one of the first products of this synthesis is formaldehyde; the latter in its turn, inaugurates a succession of further chemical syntheses which results in the formation of sugars, starch, cellulose, and other carbohydrates. No sun, no photochemical synthesis, no crops—no life! So that, after all, the whole living world is dependent upon a delicate photochemical reaction. Starvation, on one hand, or abundance of crops and foodstuffs, on the other, all within the range of photochemistry.

In the same way, our vast coal beds and our petroleum wells and our natural gas, are merely the result of light energy stored up from the plant or animal life of former geological periods. This, in itself, ought to impress us with the enormous possibilities of photochemical synthesis. And yet, here is a field where the scientist or engineer has accomplished next to nothing. In the utilization of this marvelous energy, we have not gone much beyond the art of making photographs.

So here is a power, an energy, which has been much neglected by scientist and engineer alike. Where is the Faraday, the Ampére, the Leonardo da Vinci, where is the Archimedes who

shall show us how to use the sun rays for charging our electrical storage batteries, or who will teach us how to handle the photochemical action of sunlight, or to emulate nature in her synthesis of plant life? Who will utilize this delicate method instead of our hitherto brutal processes of synthesis? Nature in her methods of plant life synthesis does not treat with boiling solutions of alkalies or strong acids; she uses no high temperatures nor strong electric currents. If we want to be successful in this direction, we shall have to utilize equipment possessing large exposed surfaces similar to the leaves of plants. We may have to operate in rather dilute solutions instead of the concentrations which are ordinarily used in our present methods. We may have to find means for rapidly separating the formed products as fast as they accumulate. We may be compelled to work within narrow ranges of temperature, perhaps not exceeding those outside of which plant life stops.

But who knows what surprises are in store for us and how we may simplify all this after the subject once begins to receive enough attention? . . .

Let us take, for instance, a well-known chemical reaction—the oxidation of carbon and hydrogen; whether this oxidation be accomplished simply by the burning of coal, gas, or oil in furnaces under a steam boiler, or by the internal combustion in any variety of a gas engine, it gives heat which in turn is transformed into motion or motive power, which runs our factories, our ships, our trains, our automobiles, our flying machines. Or, inversely, motion can be turned into an equivalent amount of heat by friction or otherwise, as every one knows who ever operated an air compressor or had to deal with a badly lubricated axle.

But motion, whether it be furnished by water rushing from a waterfall, or by a steam or gas engine, or by a windmill, can be made to turn a dynamo and produce electrical energy. The latter, in turn, can be changed into motion, heat or light. Or again, we can bridge directly that jump between a chemical reaction and light by simply burning oil, gas, acetylene, or magnesium, and thus produce any range of even the most intense light. Or, in other cases, we use heat or electricity to decompose the most refractory substances in their elements,

and some of our largest electrochemical industries in Niagara Falls are based on this. Or we may use either one of these forms of energy in chemical reactions which build up; which, in other words, bring about chemical synthesis.

But when it comes to transforming light energy into chemical synthesis, we have left thus far the monopoly of this agent to nature; we have been acting as Rip Van Winkles.

In the museum of the Franklin Institute in Philadelphia exists an electrical machine which was used by Benjamin Franklin for his experiments. It was one of the very best electric machines of his day. Yet, at that time, it was a mere clumsy toy. When the weather was not too damp and all other conditions were propitious, the operator, after turning that glass globe until he was red in the face, could draw some insignificant sparks, or charge a Leyden jar, or give a harmless shock to the person who touched it. All this was not so very long ago. Yet that toy was the forerunner of our enormous electrical industries, and all the astounding modern applications of electrical energy; our electric generating stations which give us light, power and transportation, which move our trains, our ships, our factories, which generate power far beyond anything which unscientific man of antiquity, or of a few years ago, was able to dream of. That same electricity which gave us wireless telegraphy and the wireless telephone; which has made the world bigger, and, at the same time, smaller, by rendering every nook and corner more accessible.

Let those who at present lay off their research chemists, their physicists, their research engineers, remember that the tremendous gap between that toy electric machine of Franklin and the present electrical industry, would never have been bridged but for research, invention and good engineering.

STANLEY BALDWIN

STANLEY BALDWIN

GOODWILL IN INDUSTRY

Stanley Baldwin, Prime Minister of England, was born in 1867, and was educated at Harrow and at Trinity College, Cambridge. He was financial secretary of the Treasury 1917–21, president of the Board of Trade 1921–22, and Chancellor of the Exchequer 1922–23. Mr. Baldwin has always stood for peace and conciliation in industry and during the year 1925 he made a number of notable addresses appealing for mutual toleration and understanding between the opposing interests in industrial disputes. His speeches are always marked by fairness and simplicity in presenting his case, and they have the sure emotional appeal that goes with good sense and unaffected sincerity. The following address was delivered on March 5, 1925, before a great gathering in Birmingham.

However hardened a public speaker may be, and in however many places he may have spoken, he cannot rise for the first time in Birmingham Town Hall before a Birmingham audience without feeling a thrill of emotion. For a generation this great hall was associated throughout England with the names of two of our greatest orators—John Bright and Joseph Chamberlain.

Though we who are called, so far as we are able, to fill their places in the struggle to-day, may fall far short of them in eloquence, we can at least be stimulated by their example, so that we do not fall short of them in sincerity of purpose and in truth, and in an honest endeavor to improve the condition of our people.

To-night I have no desire to ask you to join with me in a pæan of victory. You and I are thankful for the decision to which the country came at the beginning of the winter, but we want to look forward now and to devote a short time to-night to looking at some of the problems which lie before us, to see

what progress has been made, and to see in what direction the people of England should look for their own security.

How Europe Stands

I think we can best preface such an investigation by casting our eyes for a few moments at the Continent of Europe, a continent separated from us indeed by a narrow strip of ocean, but joined to us by a hundred links of commerce and of humanity, indissolubly bound up with our fate, whether we like it or whether we do not. I think we may fairly claim that although there is much to be done in Europe, yet there are signs to-day of what has not been seen hitherto, and that is a general desire for stability, and what proceeds from desire, and is more important, the will to achieve stability.

It is only determinaiton that will produce it, and until you have stability you can have no confidence, and until you have confidence you can never get that increased productive power which is one of the absolute necessities for the bettering of our own trade in England.

Now three years ago Austria, for example, was on the verge of bankruptcy. Her administrative expenses were all in arrear; her industries were paralyzed. Largely owing to the action of the League of Nations, and largely owing to the action of our own countrymen, she has been saved, and she has been put in a path, straight, indeed, but one which is leading her, and will lead her, into a position where once more she can make her contribution to the well-being of Europe, instead of being a black spot from which might spread the seeds of disease into other countries.

The same with Hungary—the same process, the same contribution, and the same results. And we see the new states brought into being since the War—Poland, Czecho-Slovakia, Jugo-Slavia, slowly, but surely, establishing their industries, buying raw material, which is the beginning, bringing them once more into the comity of industrial and commercial nations, and helping to start again that wheel of the circulation of industrial life which alone can bring health to Europe, and, by bringing health to Europe, health to us.

And in France, and in Belgium, there is a healthy and progressive increase in the industrial life of those countries, and bit by bit over the three years you have seen the healthy spots forming in Europe and spreading outwards, and gradually driving back the unhealthy parts, so that we are beginning to have a hope that before too long the body itself may be whole.

And Germany! Germany, thanks to the success of the Dawes plan, which has settled—at any rate on paper—the reparations question—it has by that very factor increased confidence in the public finance of Germany, which means confidence in the public finance of that vast population of Central Europe. The fact that a successful loan was issued, that the Reichsbank has been reconstituted, and that the currency has been restored, has enabled private credits once more to function in Germany. The negotiation of a commercial treaty with this country means that if she will now play the game, there is no reason why the interrupted trade with Central Europe should not go to join in the increase of European and world trade for the ultimate betterment of everybody.

Her internal troubles are diminishing, and we in England have, in the last year or two, made once more foreign loans to help to repair the shattered edifices throughout the world, and the United States has come in with loans, contrary to her usual practice, in Europe, to set in motion the creative energies of the people, which energies will be gradually reflected in the growing purchasing powers of the people.

The failure of that purchasing power and the financial chaos which followed on the War have been, I was going to say amongst, but I would say the chief reason of that appalling depression from which we are only just beginning to emerge in this country.

But what is it that has prevented the recovery of Europe proceeding at a greater speed than it has, and what is it to-day that is the one check and the one blight on an outlook which is beginning to look more hopeful? It is that cursed and diabolic suspicion between man and man and nation and nation that robs Europe of that sense of security that is essential to a unity of spirit which we must have before the world can function aright.

It is to help to abolish that suspicion, to help to show the better way, that Mr. Austen Chamberlain leaves England to-morrow to see what he can accomplish amongst the nations of Europe. It is to try and execute that great mission that has prevented him from having the pleasure of being here to-night, and has prevented you from having the pleasure of giving him the welcome he so well deserves in Birmingham. There is no member of the Government who has a more arduous task than he; there is no one better qualified by training and by temperament at this time to make a success of that mission.

Now, having said a few words about Europe, let us look nearer home. There is much the same story to be told—a story of constant struggle, and, on the whole, a story of ground gained and hope for the future.

How We Stand at Home

But while in England we can put our finger here and there on the hopeful signs, there are many that cause us anxiety. We have only a very partial prosperity, an industry here and there, sometimes one, sometimes another; but for four years we have hoped aganist hope that we might be able to show prosperity in all our industries.

Two years ago the coal industry enjoyed a brief spell of prosperity, due partly to the conditions in the Ruhr; and in the wake of the coal trade followed the trades in iron and steel. But, as prospects in the Ruhr looked better, and greater prosperity seemed in store for them, so the temporary improvement here gave way to depression. As those industries tailed off, there has been improvement in cotton, there has been fairly good trade in the electrical industry; but we are denied still that all round and simultaneous improvement which we not only desire to see, but which is necessary before we can feel ourselves in that position of security and stability which we all desire to see.

If you look at the figures of our foreign trade as a whole, you do indeed find some ground for moderate hopefulness. We find that the balance of imports over exports is not larger

proportionately than we are accustomed to, and that our invisible exports come to our rescue as they did before the War, and we cannot yet say that we have an adverse balance.

The Burden of Unemployment

But whatever conclusions people may draw from the examination of figures of exports and imports, I never can help translating this story into terms of unemployment. At the end of January there were a million and a quarter on the registers—practically the same as a year ago—no real substantial improvement.

Now you know well enough in Birmingham how the steel and heavy engineering trades, and you know well enough by repute how the shipbuilding trades, are suffering to-day. These heavy trades have in their numbers something like 10 per cent of the insured population of this country, but among these trades to-day their unemployment represents more than 20 per cent of the total unemployment. They are trades closely inter-locked, and they are trades closely dependent and immediately reacting on the coal trade; and I think I ought to say a word or two on the subject of this trade.

The production of coal in Europe last year increased by scores of millions of tons at a time when there was a heavy under-consumption of coal compared with the pre-war standard. It is not surprising in these circumstances that our export of coal dropped by 18 million tons. The increased cost of production here wiped out all that margin of profit at which some of the older and less efficient pits worked.

And you find pits closed, especially in the North of England and in North and South Wales; and here and there, the unexampled spectacle of pools of unemployed labor in the mining industry, where they have little immediate prospect of a resumption of work.

Now, the iron and steel trades have been specially hit by the condition of the shipbuilding trade. There you have fewer ships being built; you have an intensively increased foreign competition, and you have at home an immensely increased

capacity in point of output and a largely increased technical capacity; and you have at places like Sheffield and Barrow, where there were enormous accumulations of labor during the War for special purposes, the almost impossible task of finding in works of peace sufficient employment to take over not only their old population but the men who were attracted there for munition work in time of war.

And so it is, seven years nearly after the War, that we yet see this prolonged and intensified depression, and this horrible figure of unemployment.

Now, if you look back you will find that in 1908 you had very nearly as bad a time of unemployment, and you had it in those industries of which I have just spoken to you.

But what is the difference? In 1908 it was of comparatively short duration. To-day, we have lived through four years of it, and who can say whether we are yet at the end? There are, of course, international factors largely beyond our power to deal with, but there are national factors within our own control. We stand to-day at a point where, roughly speaking, one out of every ten of the insured population is out of work—a thought sufficient to arrest the imagination of the dullest and the most thoughtless amongst us—and a challenge to all of us to use every power we have to remedy this state of things. But there is no direct remedy from the State alone. There can be no direct remedy by private men alone.

Nothing can be done unless we can all pull together with a will. And I am—and I speak seriously—quite profoundly thankful that the Labor Party have been in office, and for this reason: that they, no more than any other Government, have been able to produce a panacea that would remedy unemployment. And in their hearts they must admit that they have no remedy which can be guaranteed to cure this disease and at the same time maintain unimpaired the international position of the British Empire.

And it is at this moment, with one in ten of the working population unemployed, at this moment when in some industries there is a faint hope of a revival, at this moment when other industries, with the utmost endeavors on their part can but just hold their own, that we witness in England signs of

an industrial storm gathering, which, if it were to break, would spread misery far and wide, and sweep back, possibly for years, all chance of returning and reviving prosperity.

An Industrial Storm Gathering

By the natural evolution of our industrial life in England we are confronted to-day, and shall be more and more, with great consolidations of capital managed by small concentrated groups and by great organizations of labor led by experienced and responsible leaders. That position must be accepted. It is the natural accompaniment of the large scale production which is gradually becoming the predominant force in all the industrial countries of the world.

It is perfectly true that if the great trade unions of this country, such as the miners, the transport workers, and the railwaymen, unite on a policy of trying to enforce a demand for higher wages in their own trades by means of a strike, they have it in their power to hold up at the same time many industries in this country, and do them irreparable damage.

Now, I said when I concluded what I had to say about the state of affairs on the Continent of Europe, there was one element that must be removed before you could get stability, before you could get security, and before you could get what follows on security—disarmament. That was suspicion, and suspicion must be removed.

I am whole-heartedly with those men who talk about disarmament on the Continent, peace on the Continent, and the removal of suspicion on the Continent, but far more do I plead for disarmament at home, and for the removal of that suspicion at home that tends to poison the relations of man and man, the removal of which alone can lead us to that stability of our struggling industry, that can by its very removal create the confidence in which our people may be able to move forward to better things.

By all means let us aim at having our conferences abroad for these good ends. Let us not neglect to have these conferences at home for these good ends, which touch us far more

closely and far more nearly than anything which happens across the Channel.

A Plea for a Truce

Why must we reserve all our talk of peace and our prayers for peace for the Continent, and forget to have our talks and our prayers for peace at home? It is one of the paradoxes of public life that from the very lips which preach pacifism abroad we hear the cries for war at home. Who was it said of Rousseau that he was a lover of his kind, but a hater of his kin? The children of such a philosophy can only bring damnation to this country.

Having said that, I want to recognize, in the most generous way that I can, that there have been speeches made amongst the leaders of labor to-day which would endorse every word that I have uttered; and I recognize the courage of those speeches, because the men who uttered them are trying at the same time to do their duty to those whom they represent and to that greater community, their country.

Whenever a man in public life, whether he be a Labor leader or the leader of the Tory Party, often enough if he speaks the truth that is in him and that he burns to tell, he will find many who will be ready to deride him for what he has said. I want to endorse the kind of speeches to which I have referred.

I want to plead for truce.

In the Middle Ages, when the whole of Europe was in conflict, one part with another and one fragment with another, men of goodwill strived in vain to get what they called a truce of God, in which people might compose their differences and live like brothers.

I want a truce of God in this country, that we may compose our differences, that we may join hands together to see if we cannot pull the country into a better and happier condition.

It is little that a Government can do; these reforms, these revolutions must come from the people themselves.

The organizations of employers and men, if they take their coats off to it, are far more able to work out the solution of their troubles than the politicians. Let them put the State out

of their minds and get down to it, as the Foreign Secretary is getting down to it to-day to try and improve the relations of foreign countries by seeking peace and pursuing it through every corner and alley that he may. So let those who represent labor and capital get down to it, and reason and pursue peace through every alley and every corner of this country.

Questions for Industry

And just as those who want peace in Europe have ever before their minds, if they fail in their object, what war may mean to the Continent, so let those who are working for peace in England realize that the breach of the peace in industry, whatever else it may mean, can mean nothing more than the prolongation of what is already too much misery among those who are suffering from unemployment to-day.

Indeed, how much there is for those responsible for the conduct of the industry—and I mean masters and men just the same—how much there is for them to-day to try and discover, and to try and understand.

Let me give one illustration. I have a letter before me now from a British firm which has works in this country, works in France, and works in Germany. And the making of a machine of exactly similar type costs £565 here, in Germany £520, and in France £400. Now all those concerned in industry should try to get at the root of the reason why a thing of this kind is possible.

Look for a moment at the employers' side.

Are the reasons for our failure to compete connected with overcapitalization, are they connected with defective management, with wasteful use of plant and of material?

Are they due at all to the absence of facilities for economic marketing?

Are State subsidies granted on the Continent?

Is there a freer use abroad of unskilled labor in various processes?

What is the cause?

And on the men's side, should not they look into the ques-

tion of whether, in the allocation to different branches of labor, it is more easy on the Continent to compete than here?

These are questions no Government can settle, that no Government can interfere with, and no Government can solve; but to get a correct answer is life and death to those, whether they be employers or employed, in industry at home.

These are the kind of issues that want fighting out over a round table, and to be approached, not with a view on the one side to get an increase of wages, or with a view on the other to get a reduction of wages, but to get at the reasons and see where the fault lies. All should take counsel together and see where and how improvement can be made in this country to achieve the desired result.

And there should be an end once and for all of that secretiveness in business, which has so often poisoned the atmosphere by causing suspicion.

When you discuss disarmament there must be all the cards on the table. Is not mystery of any kind the mother of suspicion? Confidence breeds confidence, and I would give it in the fullest and largest degree.

I would like to see firms who have factories as I have described, place on the table carefully prepared analyses of the comparative costs in the three countries for the men to examine, for accountants to examine—no mystery, no secretiveness, but a common desire to get at facts, and a common desire to help.

I do not pretend for a moment that all is easy if you simply gather men around the table. There are differences—differences of education, of early environment, psychological differences, differences of training. I was struck once by a remark made, I think it was by Mr. Hodges, that he never felt less nervous than in presenting his case at No. 10 Downing Street to members of a Government which he had no reason to believe was particularly anxious to agree with him.

I understand what he meant, and it has often struck me that it might be of real help to conferences in trades between the employers and the employed if they were presided over by a neutral person, a man qualified by his own character and ability, by his detached and independent outlook, and by the confidence which people felt in his fairmindedness—whether the

presence of such a chairman might not enable two parties to get on with greater ease, with greater freedom, and with more success in their ultimate results.

There are other things arising to which our leaders of industry, whether they be from the ranks of the employers, or from the ranks of the men, must devote their attention at this present day, if they do not wish to make confusion still worse confounded.

It is not wages alone that have to be studied, and that we must keep our eyes on. If you fix on paper minimum standards of pay it does not follow that those standards will, in fact, apply to all the men in the industry. What often results is the stoppage of the marginal factory or the marginal coal-pit, or you may find that some of them near the margin will have to go on short time, and you often find that many men are thrown out of employment.

In the same way you often hear men's leaders to-day speaking about the necessity for rigorous efficiency on the part of employers, but rigorous efficiency again often acts hardly on many of those employed. You have to take the long view as well as the short; and I think in these days what those most concerned in industry have to study is what can be accomplished in the way of insurance benefit, and what burdens can be borne by industry—this in consultation with the Government—and how far regulations and rules made in trade unions to fit circumstances of many years ago are fitted to meet the circumstances not only of to-day but the circumstances that lie ahead of us.

Here, again, there is ample room, ample scope, for such conferences as I have advocated, and, mind you, for the very best brains and the best hearts that the best men among the employers and the men themselves can put forward. This is not work for hackmen, it is work for statesmen among us.

I don't know whether things may be different and happier in Russia, for I have not had the advantage of having six weeks in that country. But in England let us never forget this: that under our system trade expansion depends so much on initiative and enterprise, and on the willingness of our people —men and women—to embark their savings in industry in an-

ticipation of making something rather more out of industry than they could make if they kept them in a stocking.

Now the element of risk and uncertainty cannot be absent from industry—it is inseparable from our system of production—but readiness to embark on that form of investment is a question of confidence. Nothing can destroy that confidence more surely than what destroys confidence on the Continent—no sense of security. The present unsettlement in this country is in itself a clog on the wheels of progress.

There may be a better industrial system imaginable than ours, and I hope indeed we may be slowly moving towards something better; but there is no doubt in my mind that if it were possible to destroy the present system in a moment, it is quite clear to me that those who destroyed it would cause a shipwreck, but they would not bring into being a ship in which to take away the survivors.

"England, Steady!"

Short, too, of any deliberate destruction of our industry, such as we have seen advocated in a few quarters, I dread that subtle poison of hatred which is being preached in some quarters, which weakens the faith of men in their own efficient service and sound workmanship—the very things which have built up the reputation of our great country, on which we still live. You may have one of the finest fleets of liners in this world, you may have it owned by the State, and you may have it run by the State; but if you have a crew bent on defying all that makes for coöperation and discipline you will bankrupt that fleet.

It has not come to that in this country, and in my belief it never will. The power of managing our own affairs in our own way is the greatest gift of Englishmen. We have demonstrated that fact in the past, and we shall demonstrate it in the future. It has been ours in a growing degree for a dozen centuries. And I cannot put that thought before you better than in the words of a distinguished Oxford man, the late Master of Balliol, who wrote:

"Nowhere was the village community so real and so enduring

a thing as it was in England for at least twelve centuries of its history. In every parish men met almost daily in humble but very real self-government, to be judged by their fellows or fined by them, or punished as bad characters, to settle the ploughing times and harvest times, the fallowing and the grassing rules for the whole village. To these twelve centuries of discipline we owe the peculiar English capacity for self-government, the enormous English development of the vocabulary principle in all manner of institutions (clubs, associations, hospitals, joint stock) and the aptitude for colonization. Our politics, our commercial enterprise, our Colonial Empire, are all due to the spirit of coöperation, the spirit of fair play, and 'give and take,' the habit of working to a common purpose which tempered the hard and grim individuality of the national character."

And if I have a message to-night for you and the people of the country, it is just this. I would say:

England! Steady! Look where you are going! Human hands were given us to clasp, and not to be raised against one another in fratricidal strife.

JULIUS HOWLAND BARNES

TEAM PLAY BETWEEN GOVERNMENT AND INDUSTRY

Julius H. Barnes was born in Little Rock, Arkansas, in 1873, and was president of the United States Food Administration Grain Corporation and wheat director during the War. He was president of the Chamber of Commerce of the United States, 1923–24. His home is Duluth where he is engaged in the business of wheat exporting. The following address was delivered before the Los Angeles Chamber of Commerce, Los Angeles, California, February 4, 1924. Probably no man in the world is better qualified than Mr. Barnes to speak on the relation of government to industry especially in regard to the fixing of prices.

Mr. President and my friends of the Pacific, I bring to you the greetings of the Chamber of Commerce of the United States with its thirteen hundred organization members and its underlying membership of 750,000 business men, engaged in commerce and trade. I do this with an especial personal pleasure and gratification because I am a western man myself and like the West. I do it with an official appreciation wider even, that the Chamber of Commerce of the United States makes its special acknowledgment to Los Angeles for the completion of its quota towards the new national home for business, approaching completion in Washington, a home in which we hope you will have a real part and pride. We recognize the contribution which this Los Angeles Chamber of Commerce has made to the Chamber of Commerce organization and work. Neither do we forget that two of this City's sons have to-day a great part to play in that wider field of European reconstruction with all the hopes that rest on that effort of business experience and ability to solve problems which are economic in character and

which have not yielded so far to political and governmental treatment.

It is surely a record of honor that your organization, thirty-five years old, should still hold the leadership in the esteem and support of this community. It is a hall-mark of community service. It is the evidence that it has played well its part in creating here the miracle city of America and of the world.

We also claim a measure of pride in your accomplishment and your progress and your growth. We read, with the training of business experience, what it means when this city in a single month just past, has issued more building permits than in the entire year five years ago. It is an assurance of widened human opportunity in this community drawing to itself from the best in all the industry of America.

The Death of Former President Wilson

My friends, America rests to-day under the shadow of a great national sorrow. In the death of former President Wilson yesterday we realize one of those momentous events which, while it is the closing chapter of an individual life, is, because of the significance of that life, also an event in national history. There closed, yesterday, the hopeless struggle of almost five years, borne patiently and uncomplainingly. To-day, as always, death seals all lips of disparagement, and to-day we recall only that dauntless courage through the dark days of war and remember best the voice of clarity and eloquence which stirred the idealism of the American soul. The mind, irresistibly carried back to the events of the days of the Great War, recalls the flood of soul-stirring memories of those days. It is a time for generous tribute to a war leader who to-day in millions of American homes symbolizes the best and finest of national aspirations. It is time for sober study of tendencies in America which developed with the War, and those which have followed since the War closed.

Because it bears witness to some of the splendid qualities of leadership which Woodrow Wilson displayed; because it may help to harden American resolution to adhere to the sane and

wholesome course in national policies, and because it carries the testimony of personal experience on which public conviction is based, I venture to submit intimately to-day something of my personal experience with the former President.

National Wheat Price Guarantee

When the armistice of the fall of 1918 ended active warfare, America faced the problem of redeeming the national pledge of a guaranteed price to the producers of the coming wheat crop of 1919. Facing a possible price collapse with the end of the War, determined to redeem its pledged faith to the American farmer, Congress did not hesitate to appropriate the stupendous sum of one billion dollars, and to authorize the use of the accumulated capital of the Food Administration Grain Corporation, of which I was then president, making a sum available from the national treasury of almost one and one-quarter billion dollars for the redemption of that pledge. President Wilson cabled from Paris asking if I would accept the office of Wheat Director, would ask my old associates in the Grain Corporation after two years of national war service under the Food Administrator, to remain another year in peace-time administration, and, equipped with adequate revenues supplied by Congress, make sure the entire fulfillment of this pledge. I accepted the position of Wheat Director with the specific stipulation that I should be responsible directly to the President, and up to the time when he was stricken ill I bear my grateful acknowledgment of the most sympathetic consideration and encouragement.

Almost from the very day when the office of Wheat Director became effective, and with the realization that there was ready access to the national treasury, theorists in both low and high station began to urge a process of deflation by a Government bread policy, paid for from the national purse. With a speciousness no greater than accompanies some of the policies urged to-day in the national Congress, there was advanced the theory that a subsidized and artificially low price of bread would, by its influence, bring down the prices of all other com-

modities in an accompanying scale. Here was to be staged a great acceleration of the process of declining prices, following war's inflation; this on the theory that meats and foods, clothing and shoes, steel and copper, furniture and building materials, wages and salaries, would all fall in healthy uniformity if only cheap bread were secured by national appropriation. There was a wave of the hand for any suggestion that even if the principle of subsidy of food could be accepted at all, other commodities might not follow, or only part of them; that at the end of the subsidy year, the termination an artificial deflation might leave disparities worse than at the beginning; that if it did not work out as theorists forecast, there would be precipitated great distress and disaster upon numberless individuals, especially those who must sell their product on a deflated market and continue to buy their necessities at war inflated prices. There was scant consideration given that the individual who found his resources sapped by a process of unequal deflation which rose from natural laws, would face that situation with courage and resolution but if that process came about by the arbitrary injection of Government influence into the play of natural forces, then there would be lasting and bitter resentment and antagonism towards Government itself.

I refused to embark with a national treasury fund upon any such sea of wind-blown theory. The pressure became at last so insistent that the question was appealed to President Wilson, and I shall ever recall with grateful appreciation the firmness and decision with which he declined to launch the Federal Government upon any such course of disastrous paternalism.

To-day, as always, there are those who would use the supreme authority of Government in an effort to shortcut the natural elimination of inequalities, always present in every human social structure. Always there are those who will recklessly use treasure raised by the taxing power of Government to attempt the quick and easy correction of disparities which inevitably correct themselves if left to the play of natural forces.

History mocks us again and again with the repetition of old problems in new forms, and blind enthusiasts and theorists repeatedly have recourse to law and edict against the repeated

lessons of history that law and edict are futile against the vast economic tides that inevitably overwhelm them.

1600 Years Ago

Sixteen hundred years ago the Emperor Diocletian, with all the authority of the then World Empire, attempted to fix, in supposedly fair relation, the intricate processes of society. Vested with absolute authority, he forced his conception of the proper relation of prices, and wages, and activities, by prescribing the penalty of death for the violation of the scale which he proclaimed. It is interesting as showing what elimination of old disparities was suggested as the ideal relation of that far-off day.

Diocletian perfected his commodity index with a care and detail which the American Congress to-day could hardly hope to excel. The record is preserved of hundreds of articles on which the price was fixed, in its relation to all commodities and to earning power. Its infinite exactness is shown, for instance, by the prescribed wage scale of a "watcher of clothes in public baths," who was to get the equivalent of nine-tenths of a cent per patron. A barber was also to get nine-tenths of a cent per patron. There is no wage scale given for a manicure, but a "veterinary for cutting and straightening hoofs per animal," was to get two and one-half cents.

There was Government control of transportation, and the tariff provided that "transportation, one person one mile," was to be nine-tenths of a cent. And to show how restrictive this was on transportation agencies, it was also prescribed that "rent for laden ass, per mile," was to be 1.8 cents, showing that unless the transportation agency carried more than two persons there was no chance for earnings against invested capital.

Diocletian appreciated the value of the legal profession of that day, and his commodity index prescribed the equivalent of $1.09 to "an advocate or counsel for presenting a case;" and then, with a shrewd insight into human nature the commodity index allow a premium of $4.53 "for finishing a case." Legal retainers in these recent days have certainly passed

the commodity index ratio of sixteen hundred years ago. The day's wage of unskilled labor was about eleven cents per day, and this was the equivalent of a pound of butter, two pounds of second quality fish, or one pound of evidently attractive "sea fish with sharp spines." The skilled laborer was to get the equivalent of twenty-two cents per day, and with two days of such labor could have purchased a pair of shoes. Evidently silk stockings for the wife and daughter were beyond his reach, for "white silk per pound" was the equivalent of two hundred and forty days' wages, while even "coarse linen thread, first quality, per pound" would have taken nearly fifteen days' skilled labor.

What if it had been possible in those days for a Roman emperor or a national congress to fix the unchanging relation of commodity value and buying power! The most casual study suggests the desolating social injury which would follow a fixed value relation of that kind. Certainly American homes would not possess, as they do to-day, the wide range of necessities, comforts and conveniences which have developed into general use. We should have had no bathrooms, plumbing, telephones, phonographs, sewing machines, automobiles, radios, and motion-pictures, and we should have had to-day no working population able to send their children to the public schools, instead of to the early work-shop.

Now history records that after some months of trial it was repealed, because its practical effect was to suspend the activities of the Empire and to stop the flow of goods into the market-place.

Russia's Recent Failure

And even in our day, and before our own eyes, we have the last great failure of an attempt to prescribe by law the price relations of commodities and relative earning power measured in human production; instead of allowing price fluctuation itself to secure its own natural correction of supply and demand.

Russia, with an imposed dictatorship, so-called, of the proletariat, in which was invested, by violence and terror, the supreme authority over a great people, has been the recent labo-

ratory in which has been tried out this same theory of edict price and edict direction of the manifold activities of a people. Prices, wages, distribution, production, all prescribed in the wisdom of a central direction, were all to be so fairly related that even a medium of exchange could be dispensed with, and the value of their money was deliberately destroyed.

Under this concentrated direction, supposedly eliminating many of the hazards and inequalities of privately directed industry, what happened to Russia's industries? This: The official statement of the Russian Government at the Genoa Conference in 1921 showed that in 1920 the production of plows was thirteen per cent of the pre-war, agricultural implements, six per cent, and iron, two per cent. Remember Russia was a great agricultural country, dependent on agriculture for production and prosperity of its peasant class as no other country in the world! Remember that Russia was equipped with coal and iron, with copper and timber and oil, and great reserves of idle labor clamoring for employment! Yet this Government-directed control of industry so miserably failed that its industry collapsed and a great people sank in three years, under that direction, to the uttermost verge of barbarism. Since then, step by step, Russia is retracing its way back to the proven practices of private initiative, recognizing the necessity for individual and national good faith in human relations, and the hope of its people for something better than a bare livelihood rests solely on the further retracing of the path upon which there was no necessity to have embarked if the lessons of history had been soberly studied.

Blind Theories of Price Relation

To-day in our American Congress, with these instances, both ancient and recent, of the futility of edict-placing of price relation in a commodity index, we have a seriously proposed bill, supported in principle by one of our Cabinet officers, that would propose to establish a Government corporation equipped with nationally-levied capital, to inject itself into the processes of buying and selling, on the theory that it can thus create that

price relation on various commodities which some official mind will think desirable.

A present-day price on a given commodity is to be fixed in its relation to a pre-war average price, in the same ratio as the general index of average commodity prices, and made effective thus by Government buying and selling. The misleading illogic of that commodity scale is shown by the statement that, although the average to-day is a theoretical 151 per cent of pre-war, yet to obtain that average there is included in that average such wide displacements of fluctuating value on individual items as rubber, at 25 per cent of pre-war, and cotton at 270 per cent of pre-war. Wheat and corn, hogs and cattle, and wool, are not to be allowed to sink below 151 per cent of pre-war average, because that happens to be the average of a commodity scale ranging from an article at one-quarter of the pre-war price, to another article at three times the pre-war price.

Suppose, for instance, that some other official mind to-day should brilliantly conceive that automobile tires should bear the same relation to pre-war prices that the general commodity average to-day bears, then fifteen million consumers, using fifty million automobile tires annually, would be paying more to-day for their tire bill by at least three hundred million additional dollars.

The American farm to-day owns three and one-half million automobiles, costing each to-day the equivalent of three hundred bushels of wheat, which in 1913 would have cost seven hundred fifty bushels. If some brilliant mind had fixed irrevocably the purchase price of an automobile at 151 per cent of its pre-war cost in wheat, the extra cost to the American farm to-day on the automobiles it now owns would represent the entire value of three successive annual crops of wheat.

The standard farm binder of 1880 cost then the equivalent of three hundred and seventy bushels of wheat, or eight hundred seventy-five bushels of corn, but it can be bought to-day for less than two hundred bushels of wheat, or less than four hundred bushels of corn. The dairy farm to-day can buy an improved cream separator for forty-five pounds less butter than in 1913.

These are some striking illustrations of the social injury which would follow an attempt by law to fix the incessant play of those potent but intangible factors of price competition which in a fair field inevitably work their own correction of disparities and in our whole national history have proven most effective in widening the circle of individual possession.

As if to add sinister absurdity to its unworkable provisions, this present bill proposes that there shall be for sale, in every post-office, a national scrip, and that by law each seller will be forced to take part payment in such scrip, and that at the end of any particular commodity transaction, perhaps a year or more in the future, this scrip will be redeemed by whatever is left in the Government Agency's hands, after it has presumably dumped abroad at a loss the surplus bought on its own commodity index price at home.

If transactions became of such magnitude that large volumes of scrip should be issued, first held by the original seller and then by process of current sale distributed into the hands of many other holders, there will flock to America the experienced and conscienceless money traders of Europe. Scrip, stamped with the name of a great Government that has held high with honor the traditional name of "dollar" through all the temptations of war's inflation and its successive deflation, will be the fluctuating victim of sinister rumor and misrepresentation such as have made the fantastic course of value of formerly honorable currencies of Europe.

This injection of Government into trading operations by which overnight some official mind may change the price levels of commodities essential to great industries, which under the modern scale of business must project their plans months in advance, will paralyze the orderly planning of America's complex industry in every direction, and put a premium upon the thoughtlessness and speculative management, as against the skilled and prudent.

The inevitable result would be to destroy the marketing and manufacturing facilities perfected in economy by intense competition, leaving a disorganization of the channels of trade and the absence of orderly markets for the certain day of ultimate failure.

Such a plan would create international distrust and hatred that ultimately would close great markets against a nation which vigorously created tariff protection for itself against foreign dumping of goods by necessitous private industry, and then embarked its own rich and powerful Government itself on subsidized dumping.

History teaches that these economic fallacies, once entered upon by Government, seldom stop until they have created utter demoralization and totally wreck the living standards of its people. Moreover, invariably an early step is the seizure by Government of land, claimed as common national property, and for its division among the workers, without compensation to the original owners. That was the course in Russia, and to-day the farm lands of Russia are held without title by peasant workers, who may be dispossessed by an edict written overnight, without warning, by those temporarily in power.

In the end, having wrecked the channels of trade at home, and injured or destroyed our markets abroad, the attempt would end in a chapter of failure and national humiliation shameful to contemplate.

Government Fair Play but no Price Opinion

Government and the official mind should have no price conviction, but have, instead, a great determination to preserve a fair field without sinister influence or imposition, so that natural forces themselves may make their price changes and their price relations without at least man's artificial inequalities to meet.

No perfect alignment of relative opportunity and relative price is ever possible. The relation will always be changing, and properly so, under the play of natural forces, but it is discouraging that there should be even in high office the necessity to repeatedly combat such specious fallacies, with their great potentiality of destruction and disaster. Why! the official mind of America a few years ago prosecuted some men for owning cotton when it advanced to the unheard-of price of

fifteen cents a pound; and to-day cotton below thirty cents a pound is looked upon almost as a national disaster.

If in this time of relative farm disability there is constructed a precedent for price influence by legislation, the farm will have established a precedent that will plague it, indeed, when the public psychology changes, as it surely will, and we again hear the cries of high cost of living which rose in this country only three short years ago. There will be used then against the farm the same principle of price relation. For instance, cotton will be held, in the interests of the great consuming class, perhaps at 151 per cent of its pre-war value, instead of its free market to-day at two hundred and seventy per cent.

It is a time for those sturdy and self-respecting leaders in agriculture itself to rise up and declare that to-day, as always in the past, the farm requires no favors, but an equal chance, confident that the human cycle will swing again and that agriculture will reëstablish itself as an industry with a great future. It certainly cannot afford to forge by its own acts to-day, the chains which will hamper its future progress.

American Industrial Evolution

American invention and American enterprise are creating an evolution in American industry which even industrial leadership scarce yet appreciates. So fast invention follows invention that it would be strange indeed if sections of our industry were not temporarily out of step; yet irregular and uneven as this industrial progress may appear to be, the trend is clearly upward, to a higher living standard and a wider distribution of individual possession and earnings than the world has elsewhere yet attained. If we survey in detail this national progress we are struck by evidence of the slow progress of our early days, and the swift progress in these later years.

The industrial era began in 1781 with the invention of the steam engine [Watt's second patent], almost coincident with our national existence in 1782. We had had fixed power before with the windmill, water-wheel and tide mill, but here was highly concentrated power which could be lifted into the place

of greatest need, mounted on wheels and used in a thousand ways of service. There was an earning capacity resting on that discovery of power service which we are just beginning to realize. In 1782 the total wealth of the world after forty centuries of effort was one hundred billion of dollars, and to-day this single republic alone possesses three hundred billions of national wealth.

So little was the significance of that discovery recognized that Congress in 1790, protecting inventions with a Patent law, provided that every application for a patent should be passed upon by a committee consisting of the President of the United States, the Secretary of State, the Secretary of War, and the Attorney General. So slowly did invention then progress that after almost fifty years, in 1836, there were issued only 149 patents; while last year we issued forty thousand,—forty thousand ideas worthy of protection, stimulating industry to the manufacture of the thousand things with which we equip the home and office and factory of America to-day.

In the early days, it took us forty-five years from the discovery of steam power before it was applied to the first American railway, and then fifty years more before the automatic air-brake made transport swift and safe.

It took forty-one years to perfect the first telegraph into the first telephone.

It took fifty years to develop the power loom to a practical device, on which rests the great textile industry of to-day.

Then the swift progress of accumulated knowledge and experience of recent years is typified by the perfection of the radio in the space of less than three years.

Wealth creation is the conversion of the favors of Nature into forms of human use. You have seen it in Southern California. You had nothing here but climate and desert land. You had not even a harbor for the sea commerce of your section. But the desert land has been transformed to garden spots, by the genius of man and the work of his hands, while dauntless energy and enterprise have built for you a great seaport. This typical creation of wealth and accumulated individual possession out of the basic resources of nature, by intelligence, energy, resourcefulness, and initiative, has grown with accelerated speed,

evidenced by the increasing annual national income, thus:

1890 — 12 billion dollars
1900 — 18 billion dollars
1910 — 32 billion dollars
1920 — 60 billion dollars
1930 — what ?

This national attainment, which is after all only the aggregate of innumerable individual earnings and possessions, is facilitated by the peculiarly American philosophy of large-scale production; the marshalling of great phalanxes of ingenious machines devised by superior mentality, placed in the service of industry; and, enlarging the productivity and earning power of every single pair of worker's hands, creating a great flood of articles which by its very weight presses into more and more American homes for everyday use.

Invention and Machine Power

In this process industry must rely increasingly on machines, and on the power to operate machines. The swelling tide of power consumption is of special interest here in California. Industry's reliance on oil consumption, which has stimulated American production from the 26 million barrels of 1880, to the 700 million barrels of 1923, with an additional call for 100 million barrels of imports besides, is but one chapter of the expanding call for power. This State, crossed and recrossed by electric power lines, is the very symbol of the growth of electric power service, which in twenty years has risen from two and one-half billion kilowatt hours to fifty billion kilowatt hours annual consumption, and the prospect of 100 billion requirements in five years more.

This reliance on machine and power service in industry relieves the strain on working forces which this expanding industry would otherwise find inadequate indeed. This shows in the picture of a single industry, the steel industry.

A pig casting machine with seven operators replaced sixty.

Cranes for pouring, with twelve operators, did the work of thirty-seven.

An open hearth charging machine, with one operator, took the place of forty workers.

A magnetic crane, with two operators, did the work of a crew of one hundred and twenty-eight.

These instances explain why the production of steel in this country rose in thirty years from 270 tons annually to over 700 tons per worker. It is the reason why American steel will rebuild the devastated cities of Japan.

The same story runs through shoes, textiles, clothing, furniture, glass, and the whole gamut of American industry; while its very acme of achievement rests in the automobile industry, where the output of 1909 of one and one-half cars per worker rose last year to nine and one-half cars per worker, and the fifteen million automobiles in America to-day sell at a price less than half of that of pre-war, in the face of a rising price tendency generally. This process of expanded worker production does not lead to unemployment. Only by this process have we been able to find the personnel for expanding old industries and the establishment of new ones.

Here is a broad path of human advance blazed by America for the guidance of the sixteen hundred million other human beings of the world, who will learn of, and aspire to possess, the same living standards as our own, as fast as they can create a buying power. Fast or slow, they will follow the example we have established, and the path of progress which America has recorded. These are the real services of American industrial philosophy and practice which translate themselves into the security of individual homes and the possession of individual content and happiness. So splendid a record of original world leadership must not be sacrificed to theories of Government that strike at the individual impulse, the very spirit of leadership itself.

When six per cent of the world population here in America converts to human use fifty per cent of the basic elements that lend themselves to such conversion—iron, steel, oil, copper, cotton, and timber—there is a vast significance for the backward people of the world. It is of vast significance that we possess almost one-half the railroad mileage of the world, almost three-quarters of the telephone and telegraph equipment; that we

produce and use ninety per cent of the automobile service of the world.

But something more is needed than the possession of natural resources.

You could lift American industry complete into Russia tomorrow, you would find there coal and iron, and oil and timber, and copper, but you could not maintain the stream of production flowing into the homes of Russia, until Russia has laid, as America has, the foundation, generation by generation, of public school education which reflects itself into the relatively high mentality of our people, and the political stability and opportunity which stimulates individual effort.

You could also lift American industry fully equipped tomorrow into Mexico, and there find natural resources, and climate, and worker personnel, but industry would collapse, because there is in Mexico no political stability under which large-scale industry can safely function, nor is there the fair play and individual opportunity which stimulates accomplishment.

The secret is that, here in America, with natural resources, with political stability, with a people of developed mentality, we have had besides that, a political ideal which has stimulated the individual to effort by the fairness of his opportunity and the sureness of his reward, through the free processes of competitive society.

Government and Industry Team Play

In this rapidly growing and increasingly complex industry, Government must necessarily bear an increasingly insistent responsibility. Industry, which is increasingly dependent on capital and credit, must rely on wise policies of Government, which touch capital and credit in three major ways—By control of currency issuance; by its control of appointments which administer Federal Reserve policies; and by its tax relations which may stimulate or depress the expansion of industry.

Informed public opinion is the great safeguard of a free people. The ideal of the Chamber of Commerce of the United States, resting on organizations like your own, must be that of

accuracy of statement, and completeness of information which guides the formation of public opinion. It must then collect that crystallized public opinion fairly, without selfish interest, and place it in the service of Government itself. It must courageously defend the field of private initiative and private enterprise created by an American philosophy which has justified itself by a more splendid material accomplishment than the world has ever seen; and it must do all these things in a way to enlist and deserve public confidence and trust. Government must not make those ventures into the field of private industry which repeated failures in the past have thoroughly discredited, and Government must so intelligently and soberly study the rightful needs of industry that it may understand and strengthen those rightful activities and employment in which the opportunity of all our people rest.

BERNARD MANNES BARUCH

PATRIOTISM IN INDUSTRY

Bernard Mannes Baruch is best known for his service on the War Industries Board, of which he was made Chairman March 5, 1918, and later as economic adviser for the American Peace Commission. He graduated from the College of the City of New York in 1889 and was for many years a member of the New York Stock Exchange until called by President Wilson to aid in the measures for national defense and control of industries in the War. The present address was delivered at the reunion of the members of the War Industries Board held at Washington on January 10, 1920.

My Comrades and Friends: Although but two years have elapsed since our group of workers dispersed, momentous changes have come over the affairs of our own land and of the world. With the dark though inspiring days of the War behind us we went to our homes with visions of golden days of peace before us. We knew that the world was bled white and staggering under its war wastes and wounds, but after the black night of that engulfing war we could see only the dawn of a busy, peaceful world, prospering as it worked with a will to undo the terrible things it had done.

But now after a time of surging though factitious prosperity we are come again into troubled days. The war clouds darken the sky no more, but clouds of business depression and stagnation obscure the sun. Because we worked and strove together in the molding and directing of the economic affairs of the nation and, to a considerable degree of the world, in the tense days of the War, some of our associates have suggested that to-night it would be well to discuss the quite different economic crisis that has now overtaken us.

We all remember clearly and, perhaps, with a twinge what happened when the war drums began their deadly roll in the

summer of 1914; the panic and tremendous drop in prices of commodities and securities; the gradual resumption of business activity, later stipulated into a lively pace by the frantic demands for all our goods by the warring nations; then, how when we, too, plunged into the maelstrom, supply was overwhelmed by demand.

What transpired then was the causal forerunner of what is transpiring now. Let us consider that controlling cause of our present woes and its unfolding; then, let us examine the present position and conditions in the clear light of actuality rather than in the dim and confused light of present-day pessimism and, finally, the remedy or remedies—for there must be always a way out.

With our entrance into the war, the last great reservoir of men, materials and credit was opened to the pent-up, war-purpose demands of pretty much the whole civilized world outside the Central Empires. We were called upon to deliver products beyond even our great normal capacity at the very moment that we were required to withdraw from their accustomed activities the flower of our superb young manhood and much of our industrial and commercial leadership. We alone gave 5,000,000 men to this conversion from production to destruction, and it would not be too high an estimate to say that all the armies withdrew 45,000,000 men from production and distribution. Moreover, at least 125,000,000 workers throughout the world were diverted to the production solely of material the major portion of which was doomed to destruction or to non-economic utilization by the armies. Within eighteen months some thirty billion dollars of financial stimulants were injected into the American business organism, not to mention the intense stimulus of patriotic purpose.

Agriculture and industry were speeded up to hitherto unknown velocities. Produce the goods and win the war was the cry. Considerations of economical production were necessarily relegated to a secondary place. Availability was the essential thing. Because of lack of sufficient shipping and, above all, the lack of time, great stores of materials such as sugar, wheat, rubber, wool and hides were backed up at external sources just when extraordinary demands were concen-

trated on American resources. Governmental regulation and allocation of labor and materials further stimulated here and curtailed there. Thus the streams of external supplies that ordinarily flowed into the American reservoir were cut off simultaneously with the opening of the flood-gates.

But that is not all. Vast quantities of supplies were necessarily accumulated and transported far in advance of immediate need. The exigencies of governmental financing compelled an expansion of currency and credits. As the available sources of supplies decreased and the volume of money augmented, prices tended to mount. Here we met the situation by continually broadening price fixing and by the restriction of the use of materials and services to needs and not to wants.

With the signing of the armistice, destruction terminated and the stimulus of wholesale governmental buying with the treasuries of the world behind it ceased. At the same time, governmental price-fixing and restrictions on civilian consumption were largely removed. There followed a popular rush to buy and a soaring of prices. Even if there had been plenty of goods, prices would have remained temporarily high or become higher because of the psychology of the situation. For a long time people had been educated to the conception of a dearth of goods, and there had developed a baseless belief in a continuation of this scarcity. They hungered for the comforts and luxuries they had so long gone without. The rebound from restraint to extravagance was violent, and, as always at times like these, there were large flotations, many indiscriminate promotions and wild speculation—absorbing capital and freezing credits.

We had become so accustomed to think of materials, shipping and railway transportation in terms of war restrictions and regulations that we had a false criterion of values when the war was over and the real conditions began to change. In the meantime the soldiers returned and began to go to work, shipping was released to commerce, the railroads stopped hauling munitions and began delivering civilian commodities, and production of economic goods was resumed; but we went on buying at any price with the persistent war belief in scarcity. The seas were again opened to commerce, shut-off sources of

supply were reopened, vast stores of materials, intended for war purposes but usable by civilians, were put on the market, and millions who had been engaged in war and war-purpose production gradually turned to economic production. But still the world was high-price minded.

The prevalence of such prices, as is always the case, stimulated production; but presently the people began to break away from the high-price thought, and consumption was curtailed. The law of supply and demand was beginning to reassert itself. As home buying lessened, the allied Governments and their peoples, who had been expending their remaining credits here in competition with domestic consumers, began to reduce their purchases. Their depreciated currencies caused them to husband their resources, and, wherever possible, increase home production. The fact that their actual importations from the United States are still large is chiefly due to past orders against the balance of their credits, to meet accumulated necessitous wants.

The conditions of the former enemy countries and of Russia with respect to trade relations with us were infinitely worse. The old structure of international trade and finance which the world has slowly built up through the decades and the centuries had become entangled or broken down. This was especially true of that important section of it that rested on the great and involved system and ramifying net-work of industry, commerce and finance that focussed in central Europe, particularly in Germany. That means that this great outlet for the normal flow of goods is almost as completely cut off as if some cosmic catastrophe had annihilated the old enemy countries and their commercial tributaries. And this economic elimination of a vast part of the world means far more than the loss of its products and markets, for with the paralysis of that center, its commercial nerves that ramified throughout the world are dead, and everywhere there is less business and enterprise because in Germany, in Russia, in Austria and elsewhere there is less.

Thus we find that, among other factors affecting our economic position, are these items: The diminished buying power of our former customers, whose business life has been dislo-

cated and grievously crippled by the war; the return to normal availability of many of the usual foreign supplies for our markets, with the consequent effect upon our price levels; the temporary stoppage of buying here, and finally the loss of many of our export markets through the cutting off of whole communities almost isolated from commercial relations because of financial and political barriers. And over and above all, it must be remembered that the whole world is staggering under a paralyzing debt, while hundreds of millions of people are still unable to swing back into productivity who, were they working, would help to carry the load.

The 120,000,000 people of the Central Empires constituted a far more important part of the industrial arterial system of the world than was formerly generally recognized. They controlled and operated a large and highly efficient part of the world's merchant marine. They were an important organizing, financing and commercially directing factor in all that vast area that was Russia and in the Balkans and Turkey. Their merchants had penetrated Mexico, Central and South America, China, Africa, Australia—everywhere.

Now let us consider the remedy for the grave situation in which we find ourselves. In the first place the malady will largely generate its own anti-toxin, as so often happens in the natural body. As abnormally high prices stimulated production and reduced consumption, so low prices will stimulate consumption and reduce production. Thus, in turn, will come about an equilibrium between supply and demand that will restore the bases of stable prosperity. But as an international process the beneficent tendency will be delayed if not stopped unless the wounded members of the world body be restored to function—and of the wounded members that are not now on the way to renewal of commercial vitality, Germany is the most important and the very one for whose wounds there is a remedy that can be applied consciously by the rest of the world body.

Germany precipitated the present distress of the world by quitting work to go to war. She can only undo the evil she has done by returning to work. The supreme need of troubled mankind is to go back to work; and yet so complex and delicate

is the machinery of modern production and distribution that it is not possible for all the world to work normally and effectively until all resume their places in the organization. We will not have peace in the fullest sense until a revived Germany again takes her part in the economic system and reopens the sources of production and distribution and the channels of trade that formerly so effectually complemented those of other commercial nations. Without Central Europe the world is incomplete and cannot work to its maximum. *Yet to pay those staggering war debts, meet oppressive current budgets, and have a margin for savings and new capital, the world must work, and work and save as never before.* Now let us see how we can all work, tune up the whole world machine and create the necessary new wealth.

By the terms of the Treaty of Versailles Germany was adjudged liable to payment for a large part of the damages she had wrought by her wanton upsetting of the peace of the world. And parenthetically, I wish to say that never was there a more insensate act than that of the rulers who plunged Germany and the world into the abyss from which we are now trying to climb. Her industrial progress was the feature of our age, and her commercial penetration of neighboring States and, indeed, of the world, was rapidly giving her the substance, if not the form, of all that she could hope to gain by victorious arms.

Now, the bill against Germany was left indeterminate, but it can be definitely fixed by the Reparation Commission, in which there is a place reserved for the United States. What Germany must pay is beyond anything in the way of indemnities or reparations that the world has ever known, just as the offense and its ruinous consequences were likewise exceptional. Germany is like a debtor who owes more than he can possibly pay, but yet does not know even approximately how much; and, therefore, declines to resume business. She will not work hard to fill a bottomless pit. I am firmly of the opinion that the one great obstacle to her early return to her place in what you might call the industrial concert of the world, with the helpful effect to her former associates is the dismaying uncertainty of the amount of the reparations she must make. At the same time there is nothing else so important to the

whole world's return to business normality and prosperity as the resumption of economic functioning by Germany.

Hence, it is not too much to say, as I do say, that the crux of the world industrial and commercial problem lies in the fixing of the reparations that Germany must pay. The Allies must eventually come to see this; for they are under heavy burdens and are looking to the German reparations for their own rehabilitation. Germany must work to produce the wealth with which to pay reparation. In helping herself she will do what is more important—she will be helping us all.

Until Central Europe is again going full speed ahead the rest of the world will lag. We may not like it, but that is the cold fact. The question of the inter-indebtedness of the Allies and *even the sane rehabilitation of our own taxation can not be disposed of until the world is again humming with industry and every route and channel of commerce is reopened.*

If France and the other Allies are to be compensated, Germany must get to work.

If Germany is not to go into decay and dissolution, into political and economic degeneration with all its international reflexes, she must be started aright now.

If we are to dispose of our surplus products, Germany and the rest of Europe must resume commercial and industrial activity so they can be the customers of old.

Whatever the final arrangements they must be just to France, Belgium, Italy and the other countries Germany ravaged and robbed. On the other hand the burden placed on her must not be such as to enslave her people, though it must be up to the very limit of her ability to pay.

France, which is more interested in the early settlement of this question than any other nation, is also the stumbling block to its realization. Nevertheless the attitude of France is not unreasonable. Remember that France through the agony of four years' defense of civilization sacrificed 1,350,000 of her sons and endured the sufferings of 1,700,000 of wounded. Her northern provinces were ravaged and their wealth wiped out, terrible gaps were blown in her industrial life, her social life was upset and broken and she was overwhelmed with the enormous debt of defense. Above all things else France is deter-

mined, and, we must all agree, justly so, that she shall not again be put in peril of felonious assault by Germany. She trusts not in Germany and is even dubious about some of her former Allies. The poilu on the Rhine and a demoralized and powerless Germany seem to France, under present conditions, to be the only way out. France must first be guaranteed that Germany shall keep the peace. Then the question will be open to settlement with due regard to economic conditions.

Although no part of the reparations may be ours, our interest in the sealing of the peace by terminating this open question is profound and vital. Much as other nations will gain, none will gain more than ourselves from taking this step towards peace and ending the present disintegrating uncertainty. The present moving call for help for the poor, starving children of the Central Empires, with which we are all in deepest sympathy, is a case in point. How much better for them and for us it would be if we could assist them by giving their fathers an opportunity to work. Humanitarian considerations as well as enlightened selfishness demand the industrial rehabilitation of the former enemy countries.

The fixing of the reparation amount would be followed, in my opinion, by a gradual reëstablishment of German credit, by an immediate rise in world exchange, by an increase in the purchasing power of all the nations and in a world-wide resumption of commerce. The balance of the German obligation should be put in the form of bonds, the interest on, and gradual amortization of which Germany could promptly pay, thus establishing their value. The French and other recipients of these bonds could use them as the basis of credit for their much needed purchases of raw materials and other things in foreign lands. Thus the settlement of the reparation question would favorably affect the world through the financial and commercial channels that radiate from the allied nations.

Now, in closing let us survey our own internal affairs, which from the standpoint of business are in much the same condition as those of the other great nations. You all know what has taken place recently and how different our present position is from that of only a few months ago and how we have descended rapidly from heights of optimism and courage to depths

of pessimism and fear of impending disaster. Some of the most incorrigible optimists of last winter are the most confirmed of pessimists now. Gone are the courage and the confidence they so bravely flaunted then now that they are needed. It is a curious fact that capital is generally most fearful when prices of commodities and securities are low and safe, and boldest at the heights where there is danger.

I would not belittle the very real distress of the moment; I have only sympathy for the men of affairs who are struggling so valiantly with the cross-currents and whirlpools of business that the cloudburst of falling prices and curtailed buying has occasioned. Things are bad but not so bad as our fears are prone to paint them. We are adjusting ourselves to restricted world markets and domestic price alterations. Losses and shrinkages have to some extent been discounted or neutralized already. There may be some more failures and further readjustments, but I see that profound curative, though at times convulsive, processes are setting in. It will not be a quick cure but it will be sure.

While automatic processes are working in the direction of economic cure, let us not forget that it is the duty and obligation of the leaders of finance both in bank and government to ease the painful process of present readjustments in every sound and proper manner. The hardships of deflation are necessarily great, in spite of all that can be done to alleviate them. Our financial leadership has as its greatest obligation at this time the duty of minimizing them, and of preventing unnecessary suffering.

All of us can accelerate the curative movement by practicing and preaching the doctrine of work and saving, by revising our burdensome and paralyzing wartime taxation—which is no longer necessary—by contenting ourselves with returns more nearly commensurate than recently with the service performed —and that applies equally to capital and labor. We must look for profits from big production, not from limitation of production. We must see to it that the present mass readjustments of prices are carried through to the ultimate consumer.

Business undertaken now is on a sound deflated instead of on an unsound inflated basis. Merely the return to real values

from those born of pessimistic feeling will work a rapid change for the better. The times bristle with opportunities for enterprise although it is true that the rewards are still subject to heavy taxation. Building has been restricted, commerce throttled, upbuilding of the railroads and the development of mines and other natural resources held back. We have a vast opportunity in making up for the work that has been long left undone, as well as in the performance of the profitable current tasks that await us. These tremendous works will require labor, capital, brains and materials in ever increasing volume. We have scarcely scratched the resources of our own country as yet, and there are limitless fields in foreign lands for our enterprise and our capital. The world is ours in a wealth-making sense.

Let us look courageously at facts as they are, let us cast off the blindfold of pessimism, let us set our house in order, let us cut the Gordian knot of the German reparations impasse, and put the whole world back to work, realize peace in the fullest measure, face the future with American dauntlessness and look with confidence for the certain dawn of a great and enduring industrial renaissance, always bearing in mind the predominating fact that the economic, political, and social elements are so interwoven that one cannot survive without the others.

ALFRED COTTON BEDFORD

FRANCE IN THE RECONSTRUCTION PERIOD

Alfred Cotton Bedford was President of the Standard Oil Co. (N. J.) from 1916 until his death in 1925. He began his connection in business as clerk for a wholesale drygoods firm and since he was 18 has been connected with the Standard Oil Co. He was prominent in the Council for National Defense in the War and has been interested in the work of reconstruction in Europe. This address was given before the Bond Club of New York.

It has been my fortune to pay frequent visits to France since boyhood, but devastated as she is, with one and a half million dead, with her industries crippled, her agriculture paralyzed, I was never prouder of her past and surer of her destiny than I am to-day. What her people have done in the devastated areas and in the reconstruction of the country's commercial and industrial life is almost beyond belief. She has not had one hour of discouragement or one hour of violence since the war.

I cannot understand how any one person may hope to express an intelligent opinion either as to the merits of the dispute between France and Germany over the indemnity, or upon France's recuperative powers, without seeing that part of France first, as it was left by the Germans, and second, as it has been transformed by the French. Exhausted by the incessant controversies, which are a heritage of the war, the average man is tempted to regard the French attitude towards Germany as savoring of a stubborn and unreasoning insistence upon "the pound of flesh." A better and truer perspective of the French point of view may, perhaps, be obtained, if one looks at it through the long and horrible vista of wanton and senseless ruin of coal mines rendered for years unwork-

able, of miles of sterile orchards and vineyards, and all of the other evidences of Germany's design to make her acts of war operative against France for years after the signing of peace. As I say, it is necessary to see these things, to understand the French point of view, and it is equally necessary to witness the almost fanatical energy of the French peasant in clearing the land of projectiles and rebuilding his home and the very important contribution he is making to the productive capacity of the country in order to understand that the French spirit is still alive and that French credit is still sound.

The transformation is proceeding so rapidly that the visitor to France of a few years hence will be able to form no adequate impression of what the greatest conflict of material forces in the history of the world meant to the nation upon whose soil it occurred. It will be a generation, perhaps, before the orchards and forests destroyed during the German retreat can be duplicated. The cathedrals, the galleries, and the other shrines of art will long await the hand of genius which is to restore them to their pristine glory, but in a land of so much beauty and charm the stranger will probably not miss much of the irretrievably lost. But please God, that which will always make France Holy Ground to the American, will always remain the hallowed resting place of our own dead.

I arrived at Romagne, the great American cemetery, just as the sun was setting. Through the greens and browns of a swiftly closing autumn day, thousands of crosses stretched up the undulating hillside. Rank on rank, the crosses stood in death as in military alignment in life these soldiers marched and fought. As I looked, the scene was transformed by the first struggling beams of a new moon, and it seemed in that vast silence, as if all human error and wrong had rolled away and that when the last post had sounded over this band of battle crusaders, sacrifice had purified and sanctified and that what was there was not of this world.

MARGARET BONDFIELD

SCIENCE AND THE HUMAN FACTOR

Miss Margaret Bondfield is well-known as a labor-leader, lecturer and writer for the socialist and labor movements. She was a Labor member of Parliament, 1923–24, and is chief woman officer of the National Union of General and Municipal Workers. The following address was delivered in May, 1924, at the Conference on Science and Labor held at the British Empire Exhibition at Wembley. The addresses of Lord Ashfield and Sir Oliver Lodge at the Conference are printed elsewhere in these volumes.

THE subject for discussion this morning is Science and the Human Factor. I am personally extremely glad that this human factor is being given a special session all to itself. There are a great many people in industry to-day who are inclined to fear the march of science in industry because the only manifestation they have seen of it is a tendency to a great regimentation of human beings, and they are naturally in revolt if that is all they see of it. The object of this Conference, I take it, is to endeavor to widen the scope not merely of observation and knowledge, but of the sympathies, particularly of the workers concerned, in the difficulties of any experimental period. I am reminded of one incident that happened in a factory where the Taylor system, for example, was put into operation with great enthusiasm by the management without any sort of previous explanation to the workers concerned, and at the end of five or six months' experiment they abandoned it altogether because the workers objected to being told to stop work for precisely fifteen minutes. They did not feel that they wanted to stop work precisely for fifteen minutes at precisely the moment the management said they had to, and, above all, they did not want to sit still as the management insisted they should. In all possible ways that sort of

stereotyping is to be avoided. It is not necessarily involved in the scientific method, and it is important to understand exactly how these things which appear so splendid to the scientific mind may appear to the unfortunate unscientific individual who is being experimented upon.

But the points in connection with the immediate programme of the application of science and its effect upon human life are so obvious, that I am quite sure there will be no difference of opinion here this morning with regard to them. Take, for example, this question of the importance of personal responsibility in matters of physical health. You may make the most perfect laws in the world; you may have the most perfect administrative machinery; but unless you also get the intelligent coöperation of the individual, while much can be done by legal enactment and administration, you will not get the complete effect of the advanced knowledge. Therefore, how to enlist the understanding and sympathy of the individual worker or citizen is a part of the problem which the scientific initiator has constantly to bear in mind. This is an age of collectivism. As a Collectivist myself with a profound belief in the desirability of a change in the direction of a coöperative commonwealth, I am equally impressed with the importance of not decreasing but of increasing personal responsibility. Without that steady rise of personal obligation coincident with the improvement of our conditions, both in regard to industry and in regard to government and local administration, you have an incomplete machine, and the human factor will spoil your most beautiful paper schemes.

There is another point upon which I think public opinion is getting very rapidly ripe: that is the importance to this particular island of more light, in every way, but particularly more sunlight. That, of course, raises the whole problem of the smoke nuisance. I sometimes feel ashamed when I go to other industrial countries where they have applied electrical power, for instance, where they have abolished the smoke fiend, where they can keep their houses clean, and the housewife has not to bother about changing the curtains every day in order that the windows may look decent. I come back to some of our Lancashire towns and in some of our oldest industries where I

find a condition of things which is a disgrace to the controllers of those great industrial concerns and to the general body of citizens. It is a disgrace because in the long run it would pay them, even from the point of view of industrial returns, to take active steps to decrease the smoke nuisance by scientific methods which are now very well known, and above all by a very great development of the use of electrical power. We are only beginnning to understand how great an effect our smoke has upon the energy and upon the physical well-being of large masses of our people. In that respect also I think a very great advance is within the realm of practical politics if only public opinion will insist upon this matter being attended to.

There is the question also of industrial fatigue. Some large employers of labor have already realized what it means to the output if the men and women employed in their factories start fresh in the morning, instead of with the remains of the last day's fatigue still heavy upon them. Relief from fatigue is going to be a very great factor which will have a commercial value, and from that point of view probably will receive more and more attention as the days go on. Scientists regard it not so much from the standpoint of pounds, shillings, and pence in a particular business, but from the point of view of the value to the nation as a whole of having a people who are physically fit and capable of making the necessary effort that will have to be made, intellectually as well as physically, if we are to hold our own amongst the nations of the world. This country has, I think, come to a very serious stage in its history, and it will depend largely upon the way in which it applies science to its industries as to whether it is still going up the hill, and whether it is still going to be a leading industrial nation in the world, or whether we shall have to see our industries steadily taking second or even third place in the markets of the world.

These matters are matters of vital concern, not merely to those engaged in industry, not merely to the wage-earner and the employer, but to every section of the community. We, therefore, ought to welcome wholeheartedly the efforts which scientific people are making at the present time to give us the

necessary information which will guide us in our industrial development, and we ought to allow no prejudices and no old-fashioned conservatism of mind to stand in the way of making such advances as are necessary in this connection. There is the type of mind which says, "My father always did it this way; it was good enough for him, and it is good enough for me." That attitude of mind is fatal to the development of this country. We cannot afford to rest upon the methods of our fathers when science has shown us finer and better and newer methods for doing the same kind of work and doing it in larger measure.

There is another point which I am sure will be dealt with in the discussion this morning; that is, with the tendency of industry to develop by means of mass-production, methods, specialization, the differentiation of processes, and so on, so that masses of work-people are confined to the manufacture of a thirtieth or even a sixtieth part of the completed article. Some change of occupation is necessary in order to maintain a level of mental activity amongst the workers in connection with their work. Those who are in the position of organizing work in the factories will be required, I think, so to arrange their staffs that no one is kept upon a particular automatic process for too long a period at a time, and that there should be a possibility of changing over to new work. I know some employers say that is uneconomic; that the great thing is speed, and if a particular girl reaches her maximum speed on a particular process, they keep her at it. But in the long run I am sure that is wrong. It is wrong because you have to consider not merely the point of speed at a particular moment of time; you must surely consider what its effect will be upon that particular human being, and if the system turns out automata instead of live men and women, then it is a system which must be condemned. There may be some process of manufacture where changes are impossible. In that case I hold that the hours of labor should be reduced to a very small number and that efforts should be made to enable that particular human being to widen and develop the faculties he or she possesses in other forms of recreation or study or social endeavor. In any case, with the development of speed and mass-produc-

tion, there is more and more necessity to pay attention to the development of the human factor. Our Lord said, "the Sabbath was made for man, and not man for the Sabbath." Industry is made for man not man for industry, and if industry is not serving mankind there is something wrong with industry. I am aware that these ideas are not widely met with so far in industrial circles; it is necessary by means of a broad minded and educated public opinion to secure the application of science to industry not only from the point of view of production, but mainly from the point of view of its effect upon human life.

LOUIS D. BRANDEIS

LOUIS DEMBITZ BRANDEIS

BUSINESS—A PROFESSION[1]

Mr. Justice Brandeis was born in Louisville, Kentucky, in 1856. After graduating from the Harvard Law School he was admitted to the bar in St. Louis and shortly moved to Boston where he continued the practice of law for nearly forty years. He was counsel in many cases that attracted wide public attention, notably in the proceedings involving the constitutionality of the Oregon and the Illinois women's ten-hour laws, the Ohio nine-hour law, the California eight-hour law, and the Oregon minimum wage law. In 1916 he was appointed Associate Justice of the Supreme Court.

This address sums up many of the important changes in the conduct of business which Mr. Justice Brandeis has long advocated and promoted. Not only as counsel but also as writer, speaker and citizen his efforts have been for what may be called the humanization of modern industry. The address was delivered at Brown University Commencement in 1912. His address, "True Americanism" is printed in Volume VIII.

EACH commencement season we are told by the college reports the number of graduates who have selected the professions as their occupations and the number of those who will enter business. The time has come for abandoning such a classification. Business should be, and to some extent already is, one of the professions. The once meager list of the learned professions is being constantly enlarged. Engineering in its many branches already takes rank beside law, medicine and theology. Forestry and scientific agriculture are securing places of honor. The new professions of manufacturing, of merchandising, of transportation and of finance must soon gain

[1] Included in this volume by the kind permission of Mr. Justice Brandeis and of Small Maynard and Co., publishers.

recognition. The establishment of business schools in our universities is a manifestation of the modern conception of business.

The peculiar characteristics of a profession as distinguished from other occupations, I take to be these:

First: A profession is an occupation for which the necessary preliminary training is intellectual in character, involving knowledge and to some extent learning, as distinguished from mere skill.

Second: It is an occupation which is pursued largely for others and not merely for one's self.

Third: It is an occupation in which the amount of financial return is not the accepted measure of success.

Is not each of these characteristics found to-day in business worthily pursued?

The field of knowledge requisite to the more successful conduct of business has been greatly widened by the application to industry not only of chemical, mechanical and electrical science, but also the new science of management; by the increasing difficulties involved in adjusting the relations of labor to capital: by the necessary intertwining of social with industrial problems; by the ever extending scope of state and federal regulation of business. Indeed, mere size and territorial expansion have compelled the business man to enter upon new and broader fields of knowledge in order to match his achievements with his opportunities.

This new development is tending to make business an applied science. Through this development the relative value in business of the trading instinct and of mere shrewdness have, as compared with other faculties, largely diminished. The conception of trade itself has changed. The old idea of a good bargain was a transaction in which one man got the better of another. The new idea of a good contract is a transaction which is good for both parties to it.

Under these new conditions, success in business must mean something very different from mere money-making. In business the able man ordinarily earns a larger income than one less able. So does the able man in the recognized professions —in law, medicine or engineering; and even in those profes-

sions more remote from money-making, like the ministry, teaching or social work. The world's demand for efficiency is so great and the supply so small, that the price of efficiency is high in every field of human activity.

The recognized professions, however, definitely reject the size of the financial return as the measure of success. They select as their test, excellence of performance in the broadest sense—and include, among other things, advance in the particular occupation and service to the community. These are the basis of all worthy reputations in the recognized professions. In them a large income is the ordinary incident of success; but he who exaggerates the value of the incident is apt to fail of real success.

To the business of to-day a similar test must be applied. True, in business the earning of profit is something more than an incident of success. It is an essential condition of success; because the continued absence of profit itself spells failure. But while loss spells failure, large profits do not connote success. Success must be sought in business also in excellence of performance; and in business, excellence of performance manifests itself, among other things, in the advancing of methods and processes; in the improvement of products; in more perfect organization eliminating friction as well as waste; in bettering the condition of the workingmen, developing their faculties and promoting their happiness; and in the establishment of right relations with customers and with the community.

In the field of modern business, so rich in opportunity for the exercise of man's finest and most varied mental faculties and moral qualities, mere money-making cannot be regarded as the legitimate end. Neither can mere growth in bulk or power be admitted as a worthy ambition. Nor can a man nobly mindful of his serious responsibilities to society, view business as a game; since with the conduct of business human happiness or misery is inextricably interwoven.

Real success in business is to be found in achievements comparable rather with those of the artist or the scientist, of the inventor or the statesman. And the joys sought in the profession of business must be like their joys and not the mere

vulgar satisfaction which is experienced in the acquisition of money, in the exercise of power or in the frivolous pleasure of mere winning.

It was such real success, comparable with the scientist's, the inventor's, the statesman's, which marked the career of William H. McElwain of Boston, who died in 1908 at the age of forty-one. He had been in business on his own account but thirteen years. Starting without means, he left a fortune, all of which had been earned in the competitive business of shoe manufacturing, without the aid of either patent or trademark. That shows McElwain did not lack the money-making faculty. His company's sales grew from $75,957 in 1895 to $8,691,274 in 1908. He became thus one of the largest shoe manufacturers in the world. That shows he did not lack either ambition or organizing ability. The working capital required for this rapidly growing business was obtained by him without surrendering to outside investors or to bankers any share in the profits of business: all the stock in his company being owned either by himself or his active associates. That shows he did not lack financial skill.

But this money-making faculty, organizing ability and financial skill were with him servants, not masters. He worked for nobler ends than mere accumulation or lust of power. In those thirteen years McElwain made so many advances in the methods and practices of the long-established and prosperous branch of industry in which he was engaged, that he may be said to have revolutionized shoe manufacturing. He found it a trade; he left it an applied science.

This is the kind of thing he did: In 1902 the irregularity in the employment of the shoe worker was brought to his attention. He became greatly impressed with its economic waste, with the misery to the workers and the demoralization which attended it. Irregularity of employment is the worst and most extended of industrial evils. Even in fairly prosperous times the workingmen of America are subjected to enforced idleness and loss of earnings, on the average, probably ten to twenty per cent of their working time. The irregularity of employment was no greater in the McElwain factories than other shoe factories. The condition was not

so bad in shoe manufacturing as in many other branches of industry. But it was bad enough; for shoe manufacturing was a seasonal industry. Most manufacturers closed their factories twice a year. Some manufacturers had two additional slack periods.

This irregularity had been accepted by the trade—by manufacturers and workingmen alike—as inevitable. It had been bowed to as if it were a law of nature—a cross to be borne with resignation. But with McElwain an evil recognized was a condition to be remedied; and he set his great mind to the solving the problem of irregularity of employment in his own factories; just as Wilbur Wright applied his mind to the aëroplane, as Bell, his mind to the telephone, and as Edison, his mind to the problems of electric light. Within a few years irregularity of employment had ceased in the McElwain factories; and before his death every one of his many thousand employees could find work three hundred and five days in the year.

Closely allied with the establishment of regularity of employment was the advance made by McElwain in introducing punctual delivery of goods manufactured by his company. Shoes are manufactured mainly upon orders; and the orders are taken on samples submitted. The samples are made nearly a year before the goods are sold to the consumer. Samples for the shoes which will be bought in the spring and summer of 1913 were made in the early summer of 1912. The solicitation of orders on these samples began in the late summer. The manufacture of the shoes commences in November; and the order is filled before July.

Dates of delivery are fixed, of course, when orders are taken; but the dates fixed had not been taken very seriously by the manufacturers; and the trade was greatly annoyed by irregularities in delivery. McElwain recognized the business waste and inconvenience attendant upon such unfulfilled promises. He insisted that an agreement to deliver on a certain day was as binding as an agreement to pay a note on a certain day.

He knew that to make punctual delivery possible, careful study and changes in the methods of manufacture and of dis-

tribution were necessary. He made the study; he introduced the radical changes found necessary; and he so perfected his organization that customers could rely absolutely upon delivery on the day fixed. Scientific management practically eliminated the recurring obstacles of the unexpected. To attain this result business invention of a high order was of course necessary—invention directed to the departments both of production and of distribution.

The career of the Filenes of Boston affords another example of success in professionalized business. In 1891 the Filenes occupied two tiny retail stores in Boston. The floor space of each was only twenty feet square. One was a glove stand, the other a women's specialty store. Twenty years later their sales were nearly $5,000,000 a year. In September, 1912, they moved into a new building with more than nine acres of floor space. But the significant thing about their success is not their growth in size or in profits. The trade offers many other examples of similar growth. The preëminence of the Filenes lies in the advance which has been made in the nature, the aims and the ideals of retaining, due to their courage, initiative, persistence and fine spirit. They have applied minds of a high order and a fine ethical sense to the prosaic and seemingly uninteresting business of selling women's garments. Instead of remaining petty tradesmen, they have become, in every sense of the word, great merchants.

The Filenes recognized that the function of retail distribution should be undertaken as a social service, equal in dignity and responsibility to the function of production; and that it should be studied with equal intensity in order that the service may be performed with high efficiency, with great economy and with nothing more than a fair profit to the retailer. They recognized that to serve their own customers properly, the relations of the retailer to the producer must be fairly and scientifically adjusted; and, among other things, that it was the concern of the retailer to know whether the goods which he sold were manufactured under conditions which were fair to the workers—fair as to wages, hours of work and sanitary conditions.

But the Filenes recognized particularly their obligations to their own employees. They found as the common and accepted conditions in large retail stores, that the employees had no voice as to the conditions or rules under which they were to work; that the employees had no appeal from policies prescribed by the management; and that in the main they were paid the lowest rate of wages possible under competitive conditions.

In order to insure a more just arrangement for those working in their establishment, the Filenes provided three devices:

First: A system of self-government for employees, administered by the store coöperative association. Working through this association, the employees have the right to appeal from and to veto policies laid down by the management. They may adjust the conditions under which employees are to work, and, in effect, prescribe conditions for themselves.

Second: A system of arbitration, through the operation of which individual employees can call for an adjustment of differences that may exist between themselves and the management as to the permanence of employment, wages, promotion or conditions of work.

Third: A minimum wage scale, which provides that no woman or girl shall work in their store at a wage less than eight dollars a week,[1] no matter what her age may be or what grade of position she may fill.

The Filenes have thus accepted and applied the principles of industrial democracy and of social justice. But they have done more—they have demonstrated that the introduction of industrial democracy and of social justice is at least consistent with marked financial success. They assert that the greater efficiency of their employees shows industrial democracy and social justice to be money-makers. The so-called "practical business man," the narrow money-maker without either vision or ideals, who hurled gainst the Filenes, as against McElwain, the silly charge of being "theorists," has been answered even on his own low plain of material success.

McElwain and the Filenes are of course exceptional men;

[1] The minimum wage in 1922 is $14.

but there are in America to-day many with like perception and like spirit. The paths broken by such pioneers will become the peopled highways. Their exceptional methods will become accepted methods. Then the term "Big business" will lose its sinister meaning, and will take on a new significance. "Big business" will then mean business big not in bulk or power, but great in service and grand in manner. "Big business" will mean professionalized business, as distinguished from the occupation of petty trafficking or mere money-making. And as the profession of business develops, the great industrial and social problems expressed in the present social unrest will one by one find solution.

GEORGE WAVERLEY BRIGGS

SERVICE, THE GENIUS OF PROGRESS

George Waverley Briggs, a banker of Dallas, Texas, was born in Camden, Alabama in 1883, and served as reporter and editor of various Texas newspapers as a preliminary to his banking career.

It was my fortune to hear a prophecy fall on one occasion from the lips of the late lamented Elbert Hubbard. He said that the world some day will be reformed, not by the reformers, but as the result of the zeal for an ideal that is burning in the hearts of business men.

That ideal comprehends the realm of business as a field for the exploitation of useful works that advance the arts of civilization and thus inure to the greater happiness of mankind. To achieve this object, business men throughout the world are combining their efforts in sincere devotion to new responsibility.

As the surface of the earth is composed of layers of clay and sandstone, slate and granite which successive geological epochs have deposited, the united strength of which upholds our soil and supports our steps, so is the society in which we live composed of strata of laws and customs, traditions, sentiments, opinions, discoveries, inventions, and physical structures, that successive generations and races have securely laid in useful effort.

The best life in the nations that are gone still lives in your civilization, proving conclusively that society advances only in proportion as it receives the enduring service of the best.

In the last fifty or sixty years we have witnessed a wide diffusion of progressive forces that are swifter, if not more certain in their effect, than even these great forces of religion and

culture have been. The progress of the world stimulated by the dynamic energies of modern trade has advanced in half a century beyond the entire accumulation of industry and science from the fall of Babylon to the rise of the American republic.

Business activities of to-day, moreover, are no longer confined to the limits of its physical sphere nor yet to the material objects with which it deals. Under the sway of new ideals they are taking on the broad sweep of an intelligent altruism, a rational philanthropy, the spirit of which tends to hold the impulse of greed and gain in subjugation to the higher demands of social and civic duty.

If you penetrate the soul of business to-day, you will discover there an imagination that circumnavigates the globe, that analyzes the policies of foreign capitalists, that foretells the needs of distant kingdoms, a mind that studies the play of social movements and anticipates the yield of harvest in the bud, and predicts the fruits of seasons yet to roll, a judgment that projects forth the chance of peace or war and discovers in regions waste and valueless the spots that civilization presently will see, a genius strong, resourceful, able, and commanding, a genius that doubles invested fortune and then doubles again by the lavish spending of a capital in which sagacity and foresight, meditation and faith, honor and service are the principal figures.

The plan conceived in great minds for the advancement of business, for the advancement of things which business undertakes to deal with to meet the material needs of mankind, these plans benefit mankind in a thousand ways, and they do more than that because they ever remind us and ever shall, notwithstanding our racial prejudices, our national differences and our hostilities of faith, that bulletins of news and budgets of advertising, cargoes of cotton and shiploads of lumber, transfers of credit and exchanges of money are really the swift and busy shuttles of that coveted unity of life, "in whose perpetual peace and understanding the war drums shall throb no longer, the battle flags be furled in the Parliament of Man, the Federation of the World."

In this sublime conception a new code of service has been devised to which business in a larger sense is endeavoring

diligently to adhere. The ancient law of *caveat emptor*, let the buyer beware, by which the trade of the commercial world so long was ruled, is giving place to that nobler sentiment of truth in advertising, under the protection of which the public is spared the penalties of its own indiscretion as well as the fell designs of unscrupulous men.

Through the great looms of personalities and institutions, service clubs, among the business groups, bureaus devoted to the preservation of business ethics, this mighty principle is being rapidly woven into the warp and the woof of our commercial life, and through associations such as yours, the International Chamber of Commerce, and organizations dedicated to a kindred aim, is fast acquiring a world-wide application to common good.

A. J. BROSSEAU

HIGHWAYS AND THE TAX PAYER

Mr. A. J. Brosseau is president of Mack Trucks, Incorporated, and a member of the Highways Committee of the National Automobile Chamber of Commerce. This address, a discussion of problems in highway finance, was delivered at the Second National Conference on Education for Highway and Highway Transport Engineering, held under the auspices of the Highway Education Board at Washington, D. C., October 26–28, 1922.

One engaged in the every-day occupation of selling transportation struggles with many unsolved problems, some of which I should like to place before the educator.

Transportation is, perhaps, the most vital factor in the lives of all of us. How much attention has it been given in the text-book, and in class room work?

How does the educator define transportation?

Does he think of it as it was twenty years ago when the railroad was the only carrier, or in terms of the highly complex relationships of to-day when we have highway, water-way, electric and steam rail lines, and very soon airways to be correlated? Is he dealing with it as it will be in the future when these agencies may overturn all of our accepted theories of economics, social life and political boundaries? Has he taken into account the fact that highway transport has already injected new factors into our economics?

Does he understand the relation between the highway and the vehicle and the important service they render to the public?

Does he know that the highway and the vehicle together constitute a great factory which produces the commodity we call transportation?

Does he realize the importance of these factors in the finan-

cial scheme of things and is he prepared to assist in developing sound theories not alone of finance but of the actual physical structure of road and vehicle?

Does he know that transportation is to-day the most important problem confronting the nation, and, if we are to arrive at sound conclusions, one that requires the best efforts of the most efficient research men obtainable?

Has it ever occurred to him that the highways are not built for the individual owners, but for the public, and that the privately owned vehicles operating over the roads are in reality mere agencies for the convenience and comfort of this same public?

I ask these questions because before we can approach the problems of highway finance with the enormous sums involved, it is essential for us to understand that we are dealing with a major phase of public service. If highway transport had not become a vital element in serving the pubic, if the public realizing its cost did not still demand it because of the benefits which it brings, then the educator would not be justified in considering this question. The recognition which national, state and county governments have given through the large appropriations already made for highway construction, and the ever-widening use of the motor vehicle, demonstrate conclusively the public acceptance of individual transportation. Is not the task of the immediate future, then, that of laying out broad policies which will make highway transport of the greatest benefit to all?

The first step, as I see it, is a readjustment of our financial policies which will permit the counties and the states to carry on their program of highway construction and maintenance in the most equitable manner possible. Incidentally, we will have to readjust our administrative policies so that when these expenditures are made, they shall fit most exactly with the needs of public service. Every dollar of expenditure must return at least a dollar's worth of service.

A survey of highway development as it is to-day shows that we are annually appropriating sums aggregating more than $1,000,000,000 for city and rural highway construction and maintenance. A further survey of our needs shows that this

program must be continued for ten years or more if we are to arrive at a connected system of highways which will render the greatest possible service to the public. If we were dealing with this question in the untroubled days before the World War, the matter of finance would be a relatively easy one and we would not be so much concerned with ways and means. But it is necessary to remember that to-day the nation is carrying a heavy tax budget, and, what is more important, that the state and county levies are at higher levels than they have been in the past. We must weigh well all of the elements entering into any appropriation for any purpose and only those must be made which we know will surely return a direct profit to the public. Further we must seek to definitely allocate those profits so that the burden will be borne in as large a measure as possible by those who are the beneficiaries.

Who Benefits?

Who benefits from highway improvement? In any attempt to answer this, and the many other questions ahead of us, there remains still much research work to be done. Now, therefore, the purpose must be to sketch out the paths which are indicated by governmental studies up to the present time, in order that the issues may be clarified.

Broadly speaking, we will all agree that those who are alive to-day and those who come after them down to the children of the third and fourth generations, will benefit from highway construction, provided that, once constructed, the highway is maintained. Some might go further and say that the highway, if maintained, will be of benefit for all time, but looking at this as practical men, we can concern ourselves only with a definite period of time wherein the inventive genius of the country would not have opportunity to upset our present scheme of transportation by new methods. This might well be from fifty to one hundred years.

It would then appear as a general proposition, assuming the ability of our engineers to maintain a highway once built, that the cost of highway construction should first of all be divided

between this generation and those to come, which, of course, at once implies long term highway bond issues. Here again, however, we come at once to practical limitations, the extent of which must be finally determined by economic research. Can the highway engineer maintain the road once built?

We have been accustomed to hear that roads have broken down under heavy motor traffic and that money expended for them has been wasted. Is this true? Fortunately, in this field we appear to be arriving at a definite demonstration of facts. Engineers tell us, for example, that forty to fifty per cent of the cost of construction of a highway is a permanent investment, assuming that the highway has been properly located. The right of way, the grade, the drainage, bridges, shoulders and engineering costs need only be paid for once. It is the surface which wears. Engineering records show that here the loss is less than is popularly supposed since in the rebuilding of a surface it is possible to salvage much of the material and use it for a base for new surfacing.

This leaves us with a definite need for constant maintenance and that maintenance is limited not by physical but by financial ability. We have placed too much stress upon the original construction and not enough upon the constant maintenance.

Can we assume proper location of the highway? Here again is a field for the student of political administration in its relation to economics. The state engineer looking at a map which shows the economic development of a state, the routes of through travel, and the feeder lines, has before him a bird's-eye picture which enables him to determine positively and accurately where highways should go. We cannot expect the local official to be able to gauge this so well. Centralization of authority seems essential if the public's funds are to be properly conserved.

Should we seek to develop all highway construction through bond issues? This question is one which cannot be fully answered until those preceding it are taken into account. Before we expend any funds we must know that the benefits to be derived from the improvements of a highway are more than sufficient to justify the cost of that improvement. We must

then be sure when bond issues are proposed that the improvement promises something more than the cost of maintenance.

Funds Must Be Assured

Before granting the authority to issue bonds, provision must be made for the proper control of construction expenditures, adequate maintenance and sinking funds. These points checked off, we are likely to find that we have come down to a consideration of the improvement of the main state systems, which will average about seven per cent of the total mileage of this country. When completed, this system will place all of us on main roads, or but a few miles away and through the feeder lines we will be enabled to reach the great highway and deliver our commodities to market.

Here then is the field in which the cost of highway construction should be divided between this generation and those to come. We are proposing that this generation shall undertake to build these roads, charge the cost to capital account, pay for them by long term bonds, use them and pass them on to the next generation in as good or better condition than we built them. We propose that each generation shall pay a fair rental charge for the use of these roads in the sum of amortization charges, and interest, plus maintenance. Shall we not then proceed as would a business man, or a farmer, when setting up his establishment? The full cost of the factory or the farm would not be assessed against the first year's income, but would be carried over a term of years, during which time the returns would be enough to meet all charges and pay a profit as well.

This must not be taken to mean, however, that we should at once proceed arbitrarily to say to every state, You must have a bond issue to take care of your road improvement program. As in all other phases of this complex problem there are a host of limitations to be set up, and it is only through investigations by trained men that we shall ultimately find the correct answer. Dogmatic statements must be avoided. Prejudice must be eliminated.

Analyses of highway development to date show that there

are two general sets of conditions which apply. The first is found in those states which, like New York, Massachusetts and some of the other eastern and perhaps middle western sections, have to deal with a developed traffic problem and have already met with many of the conditions mentioned. Perhaps Maryland is the best example, for it has a highly developed state system paid for in large part by long term bonds and now maintained from current operating funds. There is no need for a further bond issue in Maryland to-day. Perhaps there never will be. The problem of construction on the state system has been largely dealt with. In such cases there may be a period when short term bond issues will be found advisable in small lots, as often happens in business, but there is no thought that long term issues should be generally imposed where original construction has been advanced as it has in Maryland.

The other condition is that of the southern or western states, where valuations are low, mileage is high and traffic not yet developed. Here the problem is one of construction, largely. The general tax burden is high and any attempt to meet the needs of highway development from current funds would result in so retarding the program that dollars would be lost in diminished or retarded economic development where pennies would be saved. The question which here must be answered is, "Do the increased profits resulting from highway construction under bond issues, offset the difference in cost as between pay-as-you-use and pay-as-you-go methods of financing?"

Looking at this from the viewpoint of the business man suggesting clues to be run down, I want to state at the outset that if you consider this problem from the standpoint of building, let us say one hundred miles on a pay-as-you-go policy in ten years' time as against one hundred miles in one year with a bond issue, in the first case, in ten years you will have paid all of the principal charges of that one hundred mile construction, but will have obtained only an average use of fifty miles for the entire ten year period, while one hundred miles built in one year give the use of the entire mileage. This immediately suggests again the question of the benefits to be derived. In either case it must be assumed that there is to be a benefit, or the program should not be undertaken. The differences then

is the interest charged. Against that there is the ten year use of the one hundred miles, and engineering investigations now under way indicate that the difference in operating costs of transport alone over the good road as against the bad would be sufficient to defray the interest charges many times over, even if we discarded the social benefits which inure.

Who Shall Pay?

Thus far we have discussed as beneficiaries only two general classes, this generation and those that follow. If the highway bond issue plan is to be carried out, however, we must set up the conditions under which these bonds will be issued, and in order to do so we should determine more specifically the question of beneficiaries in order that, in setting up our source of revenue, we shall be as equitable as possible. At once a new set of questions presents itself for examination.

What is the effect of highway improvement upon agricultural valuations?

What is the effect of highway improvement upon urban valuations?

What is the effect of highway improvement upon the operating costs of the user, the agent of the public?

The answers will vary according to the typographical conditions, economic conditions, the extent and character of the traffic. Each state will have to meet this situation as its own needs demand and these needs can only be finally determined by specific inquiry and investigation upon a very broad scale. There are few to-day, however, who will deny the influence of highway development upon the farmer. The truck gardener, the dairy products man, and even the producer of heavy staples, has found his markets favorably affected by highway improvement. Perhaps more important, the educational and social advantages derived from highway extension have opened a new vista to all. Likewise, the development of urban properties and particularly of suburban properties has been perceptibly affected. No one who drives a motor vehicle or a horse will question the beneficial effect of highway improve-

ments. How far the use of large units made possible by road improvement has affected the economics of all three groups mentioned, is a point which few can discuss fully yet, particularly with regard to road improvement costs, but here again there is a definite problem to be worked out. So that while the relative amounts may differ, it seems that any fair plan for construction should be based upon general taxes for construction purposes, since all classes are enumerated in the three broad divisions mentioned.

When maintenance is considered, however, a different answer presents itself. The damage to the wearing surface is done by traffic. Traffic benefits first by maintenance in lowered operating costs, so traffic should be expected to meet this levy. Yet at once the question arises as to what is maintenance? Shall we say that a manufacturer building a new plant or installing new machinery to take care of increased business, should consider *that* an item of current expense? Could the farmer or business man who attempted to assess such costs against his crop or output in a single year, expect the buyer to pay it cheerfully? Likewise would the extension of a highway or of widening be an item in maintenance or construction? There seems to be a close parallel in these two instances and undoubtedly where cases of this kind occur, ordinary business practice will prevail. The same problem presents itself when a road is lifted from a low to a higher type to the extent of the difference in cost.

Regulation Must Be Flexible

Another consideration which must be made a matter for thorough study is found in regulation of traffic on the highways. The whole question of finance is tied up in this point, because, after all, the only justification for any highway improvement, as I have already noted, is the service which the highway renders and that service should be permitted to grow without restraint as long as it is sound economically. If we restrict traffic unwisely, maintenance costs may be less, but transport operating costs may be swelled out of all propor-

tion, and since the public pays the bill in any case, we should seek to make highway transport in its entirety function at the lowest possible cost.

Here we can suggest a prolific field for investigation. Overloading apparently damages both road and vehicle. Seasonal limitations appear to be necessary under certain conditions, and still with a railroad congestion such as obtains to-day, *which* is of the greater public moment—the maintenance of a low grade highway surface, or its destruction by goods which must be moved? There should be definite restrictions on maximum loads, of course, at least until the highway builder can catch up with the highway user—a goal still far in the future—but it is not necessary to consider that phase in detail now. I only wish to point out that unwise regulation, just as abuse of the road by the user, may operate to the detriment of the public interest, and therefore both should be carefully guarded against, particularly where we are concerned with the general aspects of a broad financial program predicated upon the need for traffic development.

Suggested Financial Policy

Summing up the points made, then, I would like to suggest that out of the questions presented for your analysis we have indicated the need for a very definite policy of highway finance. Personally, I should say that subject to varying conditions of highway development, of valuations, population and traffic in the several states, the program resolves itself into this:

First: The preparation of a "construction budget" by every state, estimating the cost of the primary and secondary roads to be built, year by year, for the next ten years.

Second: That based upon the stage of development of that program at this time, the cost of construction—all or part—shall be met by bond issues, except in those states where the construction program is practically complete.

Third: That a budget of current operating costs be set up to defray—interest on bonds, amortization charges, and main-

tenance. The amount necessary to pay interest and amortization should be included in the general tax levy. The cost of maintenance should be assessed against the user.

FOURTH: That all expenditures should be under the control of the state highway departments.

FIFTH: That regulatory powers should be as flexible as possible and lodged only within the state highway department, to be administered in accordance with the needs of the public.

SOUND BOND METHODS

As a summary for consideration where state highway bond issues are necessary, I suggest that:

FIRST: Bond issues should be serial in form and issued for as long a period as fifty years. The fund should be expended under rigid engineering control, and provision must be made for sufficient current income to pay interest, amortization charges and adequate maintenance.

SECOND: Interest on bonds and amortization should be paid for from general taxation. Maintenance costs should be charged against traffic.

THIRD: Maintenance shall include all charges up to and including reconstruction, save extensions or added replacement costs where an inferior is replaced by a superior type of surface.

FOURTH: Only that type of road shall be constructed which is adequate for the needs of present and future traffic. This shall be determined by careful surveys both of traffic and of economic possibilities.

In conclusion, may I express the opinion of a business man that, after all, this question is a business problem—that, if you please, of manufacturing transportation. It must be dealt with from that viewpoint alone, if the interests of the public are to be conserved.

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ANDREW CARNEGIE

THE COMMON INTEREST OF LABOR AND CAPITAL[1]

The career of Andrew Carnegie is one of the most extraordinary in our history. He was born in Dunfermline, Scotland, in 1835. He came with his family to the United States when a boy of thirteen and went to work as a weaver's assistant in a cotton factory in Allegheny, Pa. Mr. Carnegie in his later life was proud to relate the story of thrift and industry which led to his final success. He learned telegraphy, entered the employ of the Pennsylvania R. R. and became telegraph operator, advancing until he became superintendent of a division of the Pennsylvania system. During the Civil War he served as superintendent of military railways and government telegraph lines in the East. Before this he had laid the basis of his fortune through the organization of the Woodruff Sleeping Car Co. After the war he developed iron works of various kinds and introduced into this country the Bessemer process of making steel. He became principal owner of the Homestead and Edgar Thomson Steel Works and later of the Carnegie Steel Company which in 1901 was merged in the United States Steel Corporation when Mr. Carnegie retired from business. He was then probably the richest man in the world, and he had already begun his long series of philanthropies. His enormous fortune was distributed in princely benefactions. He gave over two thousand libraries to towns and cities in the United States and Great Britain. He established the Carnegie Institute in Pittsburg, the Carnegie Institution in Washington, the Carnegie Foundation for pensioning teachers, gave large sums to Scotch Universities and to many other organizations and causes. At his death the remainder of his fortune was put into a trust to aid further in support of the foundations which he had already established and of other charities. Mr. Carnegie was the author of many books and a speaker on many

[1] Reprinted from the The Empire of Business by special permission of Mrs. Carnegie.

occasions. Several after-dinner speeches are printed in Volume I. This address was given at the dedication of the Carnegie Library at Braddock, Pa. It is an address to workmen and embodies the principles which Mr. Carnegie adopted in his own business and constantly urged on both employers and employees.

A GREAT philosopher has pointed out to us that in this life the chief, the highest reward that we can obtain is the purchase of satisfactions. I have purchased a great satisfaction, one of the greatest I have ever acquired. I have been privileged to help some of my fellow-workmen help themselves. This Library (Braddock, Pa.) will give them an opportunity to make themselves more valuable to their employers, and so lay up intellectual capital that cannot be impaired or depreciated.

It is very unfortunate that the irresistible tendency of our age, which draws manufacturing into immense establishments, requiring the work of thousands of men, renders it impossible for employers who reside near to obtain that intimate acquaintance with employees which, under the old system of manufacturing in very small establishments, made the relation of master and man more pleasing to both.

When articles were manufactured in small shops by employers who required only the assistance of a few men and apprentices, the employer had opportunities to know every one, to become well acquainted with each, and to know his merits both as a man and as a workman; and on the other hand the workman, being brought into closer contact with his employer, inevitably knew more of his business, of his cares and troubles, of his efforts to succeed, and more important than all, he came to know something of the characteristics of the man himself. All this is changed.

Thus the employees become more like human machines, as it were, to the employer, and the employer becomes almost a myth to his men. From every point of view this is a most regrettable result, yet it is one for which I see no remedy. The free play of economic laws is forcing the manufacture of all articles of general consumption more and more into the hands of a few enormous concerns, that their cost to the consumer may be less.

There is no longer any room for conducting the manufacture

of such articles upon a small scale; expensive works and machinery costing millions are required, as the amount per ton or per yard of what we call "fixed charges" is so great a factor in the total cost that whether a concern can run successfully or not in many cases depends upon whether it divides these fixed charges—which may be said to be practically the same in a large establishment as in a smaller—by a thousand tons per day or by five hundred tons per day of product. Hence the reason for the continual increase year by year in the product of your mills, not that the manufacturer wishes primarily to increase his product, but that the strain of competition forces him into extensions that he may thereby reduce more and more per ton or by yard these fixed charges, upon which the safety of his capital depends.

It being therefore impossible for the employers of thousands to become acquainted with their men, if we are not to lose all feeling of mutuality between us, the employer must seek their acquaintance through other forms, to express his care for the well-being of those upon whose labor he depends for success, by devoting part of his earnings for institutions like this library, and for the accommodation of organizations such as the coöperative stores which occupy the lower floor of this building, and I hope in return that the employees are to show by the use which they make of such benefactions that they in turn respond to this sentiment upon the part of the employers wherever it may be found. By such means as these we may hope to maintain to some extent the old feeling of kindliness, mutual confidence, respect and esteem which formerly distinguished the relations between the employer and his men. We are younger than Europe, and have still something to see from the older land in this respect; but I rejoice to see that many manufacturers in this country are awakening to the sense of duty to their employees; and what is even still more important are the evidences which we find among our workmen of a desire to establish societies which cannot but be beneficial to themselves. It is all well enough for people to help others, but the grandest result is achieved when people prove able to help themselves.

Another important feature, which may be referred to is, that in Pittsburg labor, generally, is paid so well that the workman

can save something every month, if he only will make the effort. Nothing can exceed the importance of saving part of his earnings. The workman who owns his own home has already a sure foundation upon which to build the competence which is to give him comfort and independence in old age.

I have said how desirable it was that we should endeavor, by every means in our power, to bring about a feeling of mutuality and partnership between the employer and the employed. Believe me, the interests of capital and labor are one. He is an enemy of labor who seeks to array labor against capital. He is an enemy of capital who seeks to array capital against labor.

I have given the subject of labor and capital careful study for years, and I wish to quote a few paragraphs from an article I published years ago:

"The trouble is that men are not paid at any time the compensation proper to that time. All large concerns necessarily keep filled with orders, say for six months in advance, and these orders are taken, of course, at prices prevailing when they are booked. This year's operations furnish perhaps the best illustration of the difficulty. Steel rails at the end of last year for delivery this year were $29 per ton at the works. Of course the mills entered orders freely at this price, and kept on entering them until the demand growing unexpectedly great carried prices up to $35 per ton. Now the various mills in America are compelled for the next six months or more to run upon orders which do not average $31 per ton, at the seaboard and Pittsburg, and say $34 at Chicago. Transportation, ironstone, and prices of all kinds have advanced upon them in the meantime, and they must therefore run for the bulk of the year upon very small margins of profit. But the men noticing in the papers the 'great boom in steel rails,' very naturally demand their share of the advance, and under our existing faulty arrangements between capital and labor they have secured it. The employers, therefore, have grudgingly given what they know under proper arrangements they should not have been required to give; and there has been friction and still is dissatisfaction upon the part of the employers. Reverse this picture. The steel-rail market falls again. The mills have still

six months' work at prices above the prevailing market, and can afford to pay men higher wages than the then existing state of the market would apparently justify. But having just been amerced in extra payments for labor which they should not have paid, they naturally attempt to reduce wages as the market price of rail goes down, and there arises discontent among the men, and we have the repetition of the negotiations and strikes which have characterized the beginning of this year. In other words, when the employer is going down the employee insists on going up, and vice versa. What we must seek is a plan by which men will receive high wages when their employers are receiving high prices for the product, and hence are making large profits; and *per contra,* when the employers are receiving low prices for product, and therefore small if any profits, the men will receive no wages. If this plan can be found employers and employed will be 'in the same boat,' rejoicing in their prosperity and calling into play their fortitude together in adversity. There will be no room for quarrels and instead of a feeling of antagonism there will be a feeling of partnership between employers and employed. There is a simple means of producing this result, and to its general introduction both employers and employed should steadily bend their energies. Wages should be based upon a sliding scale, in proportion to the net prices received for product month by month. It is impossible for capital to defraud labor under a sliding scale."

One advantage of this Library (Carnegie Library at Braddock, Pa.) will be that it will bring before you every local newspaper and every Trade Journal, and I beg you to read these carefully. You will find many misstatements, many blunders. These are inseparable from the newspaper press, which must work hastily and report even rumors. But by studying the principal journals the tendency of affairs can be correctly seen. Newspapers will not give you a correct statement of the prices of material. Manufacturers are disposed to give the brightest coloring to the situation—to report the highest sales made with a view to maintain prices and induce customers to purchase. They will probably not report how low they have been compelled to sell in order to meet competition and keep works running. Nevertheless, a careful perusal of the newspapers and

Trade Journals, as I have said, will enable you to form a general opinion of the trend of events in the commercial world.

If you read the papers to-day, you will know that out of thirteen mills engaged in the manufacture of steel rails in this country, not more than three are running to their capacity. Only one mill in all the West is making rails (North Chicago), and I am sorry to say that it seems probable that even that one will not be able to run continuously.

The most melancholy feature in all the disputes between labor and capital is that it is scarcely ever capital that succeeds in breaking down the price of labor, but alas, it is labor which stabs labor. Look around you and see labor working at 10, 20 and even 30 per cent, less in some mills and at Johnstown and Harrisburg for less than one-half what we pay for skilled labor in this district; and then in your hearts blame not capital, but consider employers who regret those reductions in wages who stand out against them and run for years at higher prices, as the best friends of labor, even although at last they must frankly confess that if they are to give their men steady employment and save their capital and works, they are forced to ask them to work at the rates obtained by their competitors. The first employer who reduces labor is labor's enemy; but the last employer to reduce labor may be labor's stanchest friend. The fatal enemy of labor is labor, not capital.

The greatest character in the public life of Britain, and the stanchest friend of the Republic in its hour of need, the Radical, John Bright, being once asked what was his most valuable acquisition, replied, "A taste for reading." I can truthfully say from my own experience that I agree with that great man. Most anxious to give you the best advice in my power, I advise you to cultivate the taste for reading. When I was a boy in my teens in Allegheny City, Col. Anderson whose memory I must ever revere, who had a few hundred books, gave notice that he would lend these books every Saturday afternoon to boys and young men. You cannot imagine with what anxiety some of us who embraced this opportunity to obtain knowledge looked forward to every Saturday afternoon, when we could get one book exchanged for another. The principal partner with me in all our business, Mr. Phipps, equally with

yourself, had obtained access to the stores of knowledge by means of this benefactor. It is from personal experience that I feel that there is no human arrangement so powerful for good, there is no benefit that can be bestowed upon a community so great, as that which places within the reach of all the treasures of the world which are stored up in books.

We occasionally find traces even at this day of the old prejudice which existed against education of the masses of the people. I do not wonder that this should exist when I reflect upon what has hitherto passed for education. Men have wasted their precious years trying to extract education from an ignorant past whose chief province is to teach us, not what to adopt, but what to avoid. Men have sent their sons to colleges to waste their energies upon obtaining a knowledge of such languages as Greek and Latin, which are of no more practical use to them than Choctaw. I have known few college graduates that knew Shakespeare or Milton. They might be able to tell you all about Ulysses or Agamemnon or Hector, but what are these compared to the characters that we find in our own classics? One service Russell Lowell has done, for which he should be thanked—he has boldly said that in Shakespeare alone we have a greater treasure than in all the classics of ancient time. They have been crammed with the details of petty and insignificant skirmishes between savages, and taught to exalt a band of ruffians into heroes; and we have called them "educated." They have been "educated" as if they were destined for life upon some other planet than this. They have in no sense received instruction. On the contrary, what they have obtained has served to imbue them with false ideas and to give them a distaste for practical life. I do not wonder that a prejudice has arisen and still exists against such education. In my own experience I can say that I have known few young men intended for business who were not injured by a collegiate education. Had they gone into active work during the years spent in college they would have been better educated men in every true sense of that term. The fire and energy have been stamped out of them, and how to so manage as to live a life of idleness and not a life of usefulness has become the chief question with them. But a new idea of education is now upon us.

We have begun to realize that a knowledge of chemistry, for instance, is worth a knowledge of all the dead languages that ever were spoken upon the earth; a knowledge of mechanics more useful than all the classical learning that can be crammed into young men at college. What is the young man to do who knows Greek with the young man that knows stenography or telegraphy, for instance, or bookkeeping, or chemistry, or the law of mechanics, in these days? Not that any kind of knowledge is to be underrated. All knowledge is, in a sense, useful. The point I wish to make is this, that, except for the few, who have the taste of the antiquarian, and who find that their work in life is to delve among the dusty records of the past, and for the few that lead professional lives, the education given to-day in our colleges is a positive disadvantage.

The lack of education in its true sense has done more than all the other causes combined to prevent the universal recognition of labor. I remember that the great president, the greatest of all railway managers, Edgar Thomson, after whom the works here are called, once asked me to remove from Pittsburg to be master of machinery of the Pennsylvania Railroad. Well, you may smile. And I said to Mr. Thomson, "Why, Mr. Thomson, you amaze me. I know nothing whatever about machinery." "That is the reason I want you to take charge of it," he replied. "I have never known a mechanic with judgment and good sense except one." This was before the time of Captain Jones, so he could not have referred to the Captain. This lack of judgment in mechanics was because at that day in this country they had failed to receive an all-round education. I mean the true education and knowledge of matters and things in general, by which we are surrounded and with which we have to deal. The unprecedented success which has attended the development of the Bessemer works in this country has arisen from this cause, above all others, that, unlike the manufacture of iron, it has fallen into the hands of men of great scientific knowledge. The services of these men are recognized throughout the world and receive compensation which a few years ago would have been considered enormous, and in consequence they have lifted mechanical labor with them and served to dignify it in the eyes of the world. "The mechanic,"

"the mechanical engineer," "the manager of steel mills," are now titles of honor. If you want to make labor what it should be, educate yourself in useful knowledge. That is the moral I would emphasize. Get knowledge. Cultivate a taste for reading, that you may know what the world has done and is doing and the drift of affairs.

The value of the education which young men can now receive cannot be overestimated, and it is to this education, as given in technical schools, to which I wish to call your attention. Time was when men had so little knowledge that it was easy for one man to embrace it all, and the courses in colleges bear painful evidence of this fact to-day. Knowledge is now so various, so extensive, so minute, that it is impossible for any man to know thoroughly more than one small branch. This is the age of the specialist; therefore you who have to make your living in this world should resolve to know the art which gives you support; to know that thoroughly and well, to be an expert in your specialty. If you are a mechanic, then from this library study every work bearing upon the subject of mechanics. If you are a chemist, then every work bearing upon chemistry. If you are at the blast furnaces, then every work upon the blast furnace. If the mines, then every work upon mining. Let no man know more of your specialty than you do yourself. That should be your ideal. Then, far less important, but still important, to bring sweetness and light into your life, be sure to read promiscuously, and know a little about as many things as you have time to read about. Just as on his farm the farmer must first attend well to his potatoes and his corn and his wheat, from which he derives his revenue, and he may spend his spare hours as a labor of love in cultivating the flowers that surround his home. One domain your work, and the other your recreation.

In these days of transition and of struggles between labor and capital, to no better purpose can you devote a few of your spare hours than to the study of economic questions. There are certain great laws which will be obeyed: the law of supply and demand; the law of competition; the law of wages and of profits. All these you will find laid down in the text-books, and remember that there is no more possibility of defeating

the operation of these laws than there is of thwarting the laws of nature which determine the humidity of the atmosphere or the revolution of the earth upon its axis.

The severe study of scientific books must not be permitted to exclude the equally important duty of reading the masters in literature; and by all means of fiction. The feeling which prevails in some quarters against fiction is, in my opinion, only a prejudice. I know that some, indeed most, of the most eminent men find in a good work of fiction one of the best means of enjoyment and of rest. When exhausted in mind and body, and especially in mind, nothing is so beneficial to them as to read a good novel. It is no disparagement of free libraries that most of the works read are works of fiction. On the contrary, it is doubtful if any other form of literature would so well serve the important end of lifting hard-working men out of the prosaic and routine duties of life. The works of Scott, Thackeray, Eliot, Dickens, Hawthorne, and others of the same class, are not to be rated below any other form of literature for workingmen.

You all know how much manufacturing science is indebted to the improvements and inventions which owe their first suggestion to the workman himself. Now mark this important fact. These improvements and inventions come from the educated—educated in the true sense—and never from the ignorant workman. They must come, and they do come, from men who are in their special department men of more knowledge than their fellows. If they have not read, then they have observed, which is the best form of education. The important fact is that they must know; how the knowledge was acquired, it matters not. The fact that they know more about a problem than their fellows and are able to suggest the remedy or improvement, is what is of value to them and their employer. There is no means so sure for enabling the workman to rise to the foremanship, managership and finally partnership as knowledge of all that has been done and is being done in the world to-day in the special department in which he labors. From the highest down to the lowest a better grade of service is rendered by the intelligent man than it is possible for the ignorant man to render. His knowledge always comes in, and

whether you have knowledge, on the part of the manager who directs, or of the man who only handles a shovel, you have in him a valuable employee in proportion to his knowledge, other things being equal. In the course of my experience as a manager I know our firm has made many mistakes by neglecting one simple rule, "never to undertake anything new until your managers have had an opportunity to examine everything that has been done throughout this world in that department." Neglect of this has cost us many hundreds of thousands of dollars, and we have become wise. Now I say here to the man who is ambitious to learn, who, perhaps, thinks that he has some improvement in his mind, here in the rooms of this library, there is, or I hope soon will be, the whole world's experience upon that subject brought right before you down to a recent date. In any question of mechanics or any question of chemistry, any question of furnace practice, you will find the records of the world at your disposal here. If you are on the wrong track, these books will tell you; if you are on the right track, they will tell you; if you are on the right track, they will afford you encouragement. You can go through hall after hall in the patent office in Washington, and see thousands of models of inventions bearing upon all branches of human industry, and ninety-nine out of every hundred would never have been placed there had the ignorant inventor had at command such facilities as will be yours in this library.

I have heard employers say that there was great danger that the masses of the people might become too well educated to be content in their useful and necessary occupations. It has required an effort upon my part to listen to this doctrine with patience. It is all wrong; I give it an unqualified contradiction. The trouble between capital and labor is just in proportion to the ignorance of the employed. The more intelligent the employer the better, and the more intelligent the employed the better. It is never education, it is never knowledge, that produces collision. It is always ignorance on the part of one or the other of the two forces. Speaking from an experience not inconsiderate, I make this statement. Capital is ignorant of the necessities and the just dues of labor, and labor is ignorant of the necessities and dangers of capital. That is the true origin

of friction between them. More knowledge on the part of capital of the good qualities of those that serve it, and some knowledge upon the part of the men of the economic laws which hold the capitalist in their relentless grasp, would obviate most of the difficulties which arise between these two forces, which are indispensably necessary to each other. I hope that those of our men who possess that inestimable prize, the taste for reading, will make it a point to study carefully a few of the fundamental laws from which there is no escape, either on the part of capital or labor. If this library be instrumental in the slightest degree in spreading knowledge in this department, it will have justified its existence.

I trust that you will not forget the importance of amusements. Life must not be taken too seriously. It is a great mistake to think that the man who works all the time wins in the race. Have your amusements. Learn to play a good game of whist or a good game of drafts, or a good game of billiards. Become interested in baseball or cricket, or horses, anything that will give you innocent enjoyment and relieve you from the usual strain. There is not anything better than a good laugh. I attribute most of my success in life to the fact that, as my partners often say, trouble runs off my back like water from a duck. There is a poetical quotation from Shakespeare, that is applicable. It is to "wear your troubles as your outsides—like your garments, carelessly."

Many men are to be met with in this life who would have been great and successful had the world rated them at the value which they placed upon themselves. This class are the victims of an hallucination. Nobody in the world desires to keep down ability. Everybody in the world has an outstretched hand for it. Every employer of labor is studying the young men around him, most anxious to find one of exceptional ability. Nothing in the world is so desirable for him and so profitable for him as such a man. Every manager in the works stands ready to grasp, to utilize the man that can do something that is valuable. Every foreman wants to have under him in his department able men upon whom he can rely and whose merits he obtains credit for, because the greatest test of ability in a manager is not the man himself, but the men with whom

he is able to surround himself. These books on the shelves will tell you the story of the rise of many men from our own ranks. It is not the educated, or so-called, classically educated man, it is not the aristocracy, it is not the monarchs, that have ruled the destinies of the world, either in camp, council, laboratory or workshop. The great inventions, the improvements, the discoveries in science, the great works in literature have sprung from the ranks of the poor. You can scarcely name a great invention or a great discovery, you can scarcely name a great picture, or a great statue, a great song or a great story, nor anything great that has not been the product of men who started like yourselves to earn an honest living by honest work.

And, believe me, the man whom the foreman does not appreciate, and the foreman whom the manager does not appreciate, and the manager whom the firm does not appreciate, has to find the fault not in the firm, or the manager, or the foreman, but in himself. He cannot give the service which is so invaluable and so anxiously looked for. There is no man who may not rise to the highest position, nor is there any man who, from lack of the right qualities or failure to exercise them, may not sink to the lowest. Employees have chances to rise to higher work, to rise to foreman, to be superintendents, and even to rise to be partners, and even to be chairmen in our service, if they prove themselves possessed of the qualities required. They need never fear being dispensed with. It is we who fear that the abilities of such men may be lost to us.

It is highly gratifying to know that the hours of labor are being gradually reduced throughout the country—eight hours to work, eight hours to play, eight hours to sleep, seems the ideal division. If we could only establish by law that all manufacturing concerns which run day and night should use three turns, it would be most desirable. You know we tried to do so for several years at a cost of some hundreds of thousands of dollars, but were finally compelled by our competitors to give up the struggle; the best plan, perhaps, is to reach it by slow degrees through state laws. No one firm can do much. All its competitors in the various states must be compelled to do likewise, for in our days profits are upon so narrow a margin that no firm can run its works except under similar condi-

tions with its competitors. It is necessary, therefore, that laws should be secured binding upon all. We should be glad to support such a law; but, even as at present, if workmen use well the time they have at their disposal they will soon rise to higher positions. You need not work twelve hours very long; most of us have worked more hours than twelve in our youth.

The workman has many advantages to-day over his predecessors. A sliding scale for his labor ranks him higher than before as a man and a citizen. The proportion of the joint earnings of capital and labor given to labor never was so great and is constantly rising, the earnings of capital never were so low. The cost of living never was so low in recent times.

I hope the future is to add many more advantages and that the toilsome march which labor has had to make on its way from serfdom, when our fore-fathers were bought and sold with the mines and factories they worked, up to its present condition, is not yet ended, but that it is destined to continue and lead to other important results for the benefit and dignity of labor.

[The sliding scale proposed was afterwards introduced by Mr. Carnegie and has been in successful operation for many years.]

THOMAS NIXON CARVER

EMPLOYEE AND CUSTOMER OWNERSHIP

Thomas N. Carver was born in Kirkville, Iowa, in 1865, and has been professor of political economy at Harvard since 1902. He is one of the eminent economists of this country and in the following address discusses a recent and important change in our economic conditions. This address was delivered at the forty-third annual convention of the American Electric Railway Association held at the Million Dollar Pier, Atlantic City, New Jersey, October, 1924.

The World War produced a number of political revolutions in Europe. It has not yet produced an economic revolution. A number of old governments have been overthrown and new ones set up in their places. In some cases this resulted in a temporary economic débacle, but wherever industry has begun to function again it looks so much like that which existed before the revolution as to be difficult to distinguish from it. No significant improvement over the old forms of industry has yet been produced in any European country by any of these political revolutions. Their ultimate effects go no deeper than those that follow the ousting of one gang of politicians from the government of an American city and the substitution of another.

An economic revolution may follow as a result of a political revolution, but usually it does not. According to De Tocqueville, the one significant result of the French Revolution, which was primarily political, was that the peasants got possession of the land that had formerly been held in large estates. Up to the present (1924) that is the only economic improvement noticeable in Russia; yet the specific purpose of the Russian revolutionists was to use the power of government to force a new economic order upon the people. In spite of the most ruthless exercise of governmental power which the modern world has

ever seen, they have found the economic forces too much for them. As to the peasants and the land, the most that the revolution did was to facilitate a process that was already going on. More than that, the whole process was toward the private ownership of land, which is the direct antithesis of communism. In short, the economic forces brought about the ownership of land by the peasants in spite of rather than with the help of the new political power.

Economic revolutions usually proceed from causes that lie deeper than politics or government. The most that a government can do is to hasten or retard them, and even this is not always possible.

The only economic revolution now under way is going on in the United States. It is a revolution that is to wipe out the distinction between laborers and capitalists by making laborers their own capitalists and by compelling capitalists to become laborers of one kind of another, because not many of them will be able to live on the returns from capital alone. This is something new in the history of the world.

The labor movement in this country is so far in advance of that in any other country as to make comparison impossible. In European countries, including Great Britain, labor organizations and labor leaders are still pursuing antiquated methods that are comparable to the attempt of a man to lift himself by his boot straps. Here they are using the fulcrum of capital ownership and are actually lifting themselves into positions of well-being that amount to affluence in comparison with the conditions of European laborers. In European countries they are dominated by a psychology that was built up in a primitive and fighting stage of social development; here they are emerging from that stage and are beginning to think in constructive terms such as belong to a progressive and industrial stage. In European countries they are grasping at the shadow of political control, but have never and never will by that method put an ounce of the substance of economic prosperity into the hands of any laborer. In this country they have refused to be deceived by shadows and are rapidly gaining the real substance of prosperity.

Those belated minds that are still thinking in terms of the

primitive tactics of class war will not understand a single syllable of the last paragraph. The labor movement in this country is passing out of the stage in which leadership concerned itself mainly with the immediate tactics of battle. It is passing into the stage where it is concerning itself with the higher strategy of labor. This higher strategy takes account of the permanent economic forces and puts labor in a position where these forces work for it rather than against it. Instead of fighting capital they are beginning to recognize its power and to use it as an implement for their own improvement. There are at least three kinds of evidence that indicate roughly the extent to which laborers are becoming their own capitalists in this country; first, the rapid growth of savings deposits; second, the investment by laborers in the shares of corporations; third, the growth of labor banks.

Some idea of the financial power of laborers may be gained by a reasonable interpretation of the statistics regarding savings deposits, the assets of building and loan associations and the premiums of insurance companies. The total figures as given by the Department of Commerce are:

For savings deposits of all kinds on June 30, 1923	$15,260,959,300
For total assets of building and loan associations	3,342,530,953
Add to these the total amount of life insurance premiums paid during the year of 1922	2,336,444,586
Total	$20,939,934,839

Of course these savings are not all made by manual workers. Probably a relatively small proportion of the life insurance premiums are paid by them; but it is known that a fairly large proportion of savings deposits and payments to building and loan associations are by working people. Discount this as much as we dare, it is still a fair inference that the share of working people in the twenty billions of savings will at least be somewhere in the billions. Any day the laborers decide to do so, they can divert a few billions of savings to the purchase of the

common stock of industrial corporations, railroads, and public service companies, and actually control them. This is not necessarily a good policy, but it is within their power to do so if they decide that it is to their interest.

As to the investment of laboring people in the shares of corporations, some interesting figures are available, though the half has not yet been told. *The Financial World* recently sent a questionnaire to one thousand of the leading corporations of the country for the purpose of finding out how far the movement had progressed. Only 129 replies were returned. Of these 104 showed that employees below the grade of officials owned stock, though 118 of the replies stated that the management favored the plan. Of those that showed employee ownship, only 54 had offered special inducements to persuade employees to buy stock. What are known as public utility corporations showed the strongest tendency toward the plan.

The largest number of employee stockholders in any single industrial corporation is 50,020, owning 689,703 shares. Two others show 15,000 employee stockholders each, owning in one case 450,411 shares and 200,000 in the other. One smaller corporation reports that all its common stock is owned by its employees, but does not tell how it is distributed between the official class and the manual workers. Another reports that 12,000 of its 18,000 employees own stock. Still another reports that 3,000 of its 6,000 employees own two and a half million dollars worth of stock. A number of corporations that did not reply to the questionnaire are known to have a considerable number of employee stockholders.

Of the 171 public utility corporations listed, 33 replies were received, 32 of which report employee stockholders. One reports that 94 per cent of its employees own from 1 to 50 shares each; another that 149 of its 151 employees own stock; still another that 510 of its 543 employees own 5,211 shares. The most striking case, however, is a well known traction company all of whose 11,500 employees own stock amounting to 120,000 shares. One company reports that none but officers own stock.

Among those that did not reply to the questionnaire, the

Southwestern Bell Telephone Company has published in its annual report the statement that

"The Employees' Stock Purchase Plan, under which employees may subscribe for capital stock of the American Telephone and Telegraph Company on favorable terms continues in effect. On December 31, 1923, more than 5,900 employees were subscribing for 17,496 shares. Since the introduction of the existing plan in May, 1921, more than 14,000 employees have exercised their privilege of participation and a large percentage of employees of your Company already are shareholders of record. The Plan provides not only a means for acquiring a high grade investment stock but as well a means for promoting systematic saving."

A report on Employees' Thrift and Savings Plans, prepared by The Policyholders' Service Bureau of the Metropolitan Life Insurance Company, mentions a number of other companies in which the plan is in operation, in one of which—a large motor company—94 per cent of the employees are participating in the plan for employee stock ownership. In the large soap manufacturing company, 60 to 85 per cent of the employees own $1,600,000 worth of stock. This report shows that a considerable number of companies that did not reply to the questionnaire of *The Financial World* are making use of the plan.

In the chapter on The Workman as Stockholder in "Labor's Money," by Richard Boeckel, the following information is given:

"Twenty-one thousand of the employees of Swift and Company, constituting more than one-third of the total number of men and women employed by the company, hold Swift shares with a total par value exceeding $21,000,000.

"Ninety-four thousand of the employees of the American Telephone and Telegraph Company are making payment in instalments upon stocks subscribed under the company's profit sharing plan. Of this number approximately 46,000 hold shares upon which payment has been made in full.

"The E. I. du Pont de Nemours Company has distributed stock valued at $20,765,999 among its employees since the inauguration of its plan. The total distribution in 1923

amounted to 14,484 shares with a total par value of $1,448,400.

"Six thousand employees of the General Motors Corporation, one out of every twelve employed, hold 270,000 shares of common stock in that corporation, valued in excess of $4,000,000.

"Employees of Sears, Roebuck and Company, own 55,700 shares in that enterprise, purchased through the employees' profit sharing fund, and 77,600 shares purchased outside the fund.

"Seventy per cent of the workers employed by the International Harvester Company hold common stock in the company, the aggregate value of their holdings exceeding $5,000,000.

"Practically every workman employed by the Proctor & Gamble Company is a shareholder in the enterprise. Ninety per cent of the employees of the Firestone Tire and Rubber Company are stockholders. Every third man in the employ of the Goodyear Tire and Rubber Company holds one or more shares of stock.

"Other corporations in which employees hold large blocks of stock include the Standard Oil companies, the General Electric Company, the Westinghouse Electric and Manufacturing Company, the Eastman Kodak Company, the J. B. Stetson Company, the National Lead Company, the National Biscuit Company, the Republic Iron and Steel Company, and the Studebaker Corporation.

"The United States Steel Corporation, called by Samuel Untermeyer, 'the greatest enemy to industrial peace in America,' was a pioneer in employees' stock distribution. The corporation was chartered in 1901. Its stock subscription plan was put into operation in 1903. In every year but one since 1903, the corporation has offered large amounts of its stock, bought in the open market, for subscription by its employees. In the beginning only preferred stock was offered, but offerings since 1916 have all been of common stock. Employees are allowed three years in which to pay for stock subscribed. An annual bonus of $5, in addition to the regular dividends, is paid to each employee holding his stock for a period of five years. In recent years all the corporation's offerings to employees have been largely oversubscribed."

Owing to the meager reports it is impossible to give any satisfactory figures as to the total amount invested by American working men in the stock of the companies that employ them. About all that can be said is that it clearly runs up into billions of dollars.

In addition to the accumulation of savings by working people and the investment in the stock of corporations we have in this country a strikingly new phenomenon in the form of the labor bank. The general facts regarding them are well stated in "Labor's Money" by Richard Boeckel. According to a recent statement of Mr. Warren S. Stone of the Brotherhood of Locomotive Engineers, there are thirty labor banks now in existence in this country and many more are organizing. They already have resources of $100,000,000 and are doubling these resources every year. The movement has already developed far enough to have its own organ, a well edited and prosperous journal, called *The Labor Banker*. Its editorials and articles compare favorably with those of other financial journals, and it shows a practical common sense, worthy of a disciple of Benjamin Franklin.

Where else in the world is it possible to-day to find anything corresponding to these labor banks?

If we add to the savings of laborers their investments in the shares of corporations and the funds in the labor banks, the large funds already in the treasuries of the labor unions, we shall begin to see that the financial power of the American laboring people is a factor to be reckoned with. All good citizens who are interested in the expansion of American industries should take account of this. Here is a new source of capital that may be so directed as to increase the productive power of the country and to create an additional demand for labor. Every time the laboring people of this country materially increase their savings and sound investments, they are helping themselves in two distinct ways. In the first place, they are gaining a new source of income. Every $100 that brings 4 per cent adds $4.00 a year to the saver's income. In addition to this, and perhaps more important, is its effect upon the labor market. The more capital there is seeking investment, the more easily can new and productive enterprises be financed.

The more new productive enterprises are properly financed and put in operation, the more jobs there are calling for men, the higher the wages of labor will be, and the less unemployment there will be. Laborers are beginning to appreciate this and to engage in what may be called the higher strategy of labor.

At this point we should stop to notice the essential difference between primitive fighting tactics and the higher economic strategy. In primitive warfare you gain in proportion as you thin out your enemies. The more uncomfortable you can make it for them, the fewer there will be of them and the better it will be for you. All our ancestors for thousands of years had to think in these terms. It will take some time to breed this idea out of our people. The clear, cold fact is that in the modern economic world you gain in proportion as you increase the number of your enemies on the market. Take the simple case of producer and consumer. When they are dickering over prices they are opponents. If they become irritated at one another, they are likely to fall back into the old way of thinking and try to treat each other as enemies. If the producers are dominated by this ancestral habit of thought, they will hate all consumers.

"Hates any man the thing he would not kill?"

It is, of course, obvious to the most elementary student of economics that what producers should do if they knew their own interest would be to try to increase the number of consumers. What they are very likely to do when they become angry is to try to thin them out. During the sugar shortage of the War, the cranberry growers on Cape Cod had difficulty in selling their cranberries. The scarcity of sugar almost destroyed the demand for cranberries; the reason being that people do not want cranberries, they want cranberry sauce, and cranberry sauce is not made of cranberries alone; it is made of cranberries *and* sugar. If one ingredient in that delectable compound is missing, the other is not of much use. Suppose the cranberry growers had been incensed because of the low price of cranberries and the high price of sugar, and had acted naturally, according to the principles of behaviorism. They would have started some sort of a war against sugar importers and refiners and would have made it uncomfortable for them, and

probably driven some of them out of business. Every student of economics knows that while this might be a perfectly natural procedure, it would not do cranberry growers any good; in fact it would do them harm. They would merely be engaged in the very common practice of biting off their own noses to spite their faces.

This is the principle that runs through all our economic life. Goods are not produced by labor; they are produced by labor *and* capital. If one ingredient is missing, there is not much demand for the other. Take for illustration a new farming community where the farmers have not yet equipped their farms with the necessary tools, buildings, livestock, etc. What they need is more capital. Of course it would be a fine thing if they had capital of their own. If they do not, the next best thing is to be able to borrow it. But if there is very little loanable capital to be had and very few lenders, they will bid against one another for that small amount and force up the rate of interest. It would be very natural for the farmer to be incensed against the money lenders and want to make war upon them, in accordance with their inherited psychology. This would discourage other money lenders from coming to such a community or sending their capital there. The farmers would clearly be doing themselves harm rather than good by behaving in this perfectly natural way. They must realize that what is natural is not always identical with what is wise or economic. If they behaved in accordance with economic wisdom, they would try to attract as many lenders and as much loanable capital as possible to that community. This would give them lower interest rates and a more abundant equipment for their farms. If they behaved in accordance with the primitive fighting tactics, they would tend to drive lenders of loanable capital out of the community. If they behaved in terms of higher strategy, they would offer such terms and inducements as would attract lenders of loanable capital.

In the case of labor and industries in general, the same principle follows. In proportion as capital is scarce relatively to the labor supply, in that proportion will capitalists be well off and laborers badly off. What the laborers really need is more capital. This is just as clear and definite as that the cranberry

growers in the former illustration needed more sugar, or the farmers more loanable capital. When the laborers begin to think in terms of the higher strategy, they will be trying to increase the quantity of capital. They can do this both by increasing their own savings and by encouraging savings on the part of other people. This is perfectly clear to any one who is not blinded by his primitive and inherited behaviorism. Many laborers as well as many highbrows are still blinded. Most of their self-appointed leaders are leading them by appealing to their inherited attitude toward enemies. Most of the trade union colleges that have thus far been started are led by people who still think in these primitive terms, and the policy of these colleges is to blind still further the laborers to the real economics of the situation.

In terms of the higher economic strategy, every encouragement of course should be given to laborers to organize their own banks and to run those banks as banks ought to be run, by safeguarding the capital of depositors and financing real, productive enterprises. But it is also to the interest of labor that other banks should be started to do the same thing. The more banks there are performing these two essential functions, the more capital there will be available for the financing of new and productive enterprises. If there is enough capital in the country and there are enough wise investors, no really productive enterprise will ever fail to secure adequate financial backing. When that happens, there will be so many productive enterprises in operation as to create a greatly increased demand for labor. This will put labor in a position of great strategic advantage. In other words, this is one of those cases where it is to the interest of labor to increase the number of its so-called enemies. In proportion as laborers learn to think in terms of economics rather than in terms of the cheap demagogics that is taught them by so many loquacious persons, they will begin to see the advantage of encouraging every possible accumulation of capital from every possible source.

In spite of the large number of cant, demagogic phrases with which discussions of labor banks are infused, there is evidence that large numbers of their less loquacious leaders are beginning to think in terms of the higher strategy. This has shown itself

in several non-financial policies, especially in policies that tend to decrease the supply of labor. The most outstanding and beneficent piece of legislation ever enacted in this country in behalf of labor was the restriction of immigration. This has tended to make manual labor scarce and hard to find and is the principal factor in the present high wages of such labor. A general system of popular education under which every young person who grows up has enough training to give him at least several choices of occupations is another factor. This means that relatively few people will be compelled to do manual labor, unless manual labor is well enough paid to attract them. The laborers of the country have therefore shown a due appreciation of the strategic advantage of a system of universal and popular education. Alcoholism generally tends to operate in the opposite direction, or to demote rather than promote people; in other words, it tends to congest the lower occupations, just as the system of popular education tends to deplete the lower occupations. Most labor leaders, especially the less loquacious ones, have shown the appreciation of this fact and have been for prohibition.

Democratic ideals and principles, under which every individual is encouraged to rise in the economic and political scale as far as his ability will permit him, is another factor. There are still a few benighted voices lifted in protest against the son of a laboring man deserting the ranks of labor. Of course it is very much to the interest of laborers that every one who can should desert the ranks of labor. The man who is capable of becoming an employer of labor and who deliberately chooses to remain a wage worker is doing definite harm to labor. He is competing with other laborers for jobs when he might be making other jobs for them as an independent business man. This is as clear as anything well could be, but there are fewer labor leaders who see this point than there are who see the advantage of restricting immigration or the advantage of a popular educational system. However, some of them see it perfectly clearly. Whether they do or not, the democratic traditions of this country are operating in the direction of wisdom.

If our labor leaders and those who are trying to become labor leaders will continue to think and act more and more in

terms of the higher economic strategy, decreasing the supply of those forms of labor that are over-supplied, increasing the supply of capital and business management, favoring policies that will expand industry and so make it possible for laborers to become their own capitalists, there is scarcely any limit to the prosperity that may come to our laboring classes without a single essential or fundamental change in the institutions of the country or in the basic principles of the economic system. We can have what to all intents and purposes might be called a practical equality of prosperity without surrendering the principle of voluntarism under which we are now proceeding. We shall have much greater prosperity for all classes than can possibly be secured under any system of compulsion such as they are trying in Russia and such as the British Labor Party, if it lives up to the previously published opinions of its leaders, will eventually try.

It has long been the dream of social reformers that laborers would own the shops and factories in which they work. There are reasons for doubting that this would be as desirable from the standpoint of the workers as some have imagined. It is true that the workers would get the profits, if there were any, but it is equally true that they would also bear the losses if there were any. On the whole, losses are almost, if not quite as common as profits.

Granting, however, that it would be desirable for the workers to own the establishments in which they work, there are three ways—two dishonest or revolutionary, and one honest—by which they may acquire them. The first and most direct of the dishonest methods is to seize them by force. This is the method openly advocated by the so-called "direct actionists" and practiced by the Bolsheviki. Aside from the dishonesty of it, this method has serious drawbacks. The government must first be overthrown. Even then, the situation is not secure. Though this plan may put the present property in the hands of the worker, it cannot renew the property when it is worn out. There will be no new property to seize. People who never had enough thrift and forethought to buy and pay for property in the first place seldom have enough to keep the property up after they have gained it in some other way. When it runs down,

there will be nothing to steal with which to keep up repairs. This the Bolsheviki early discovered to their discomfiture.

Another dishonest way is to gain possession of the government and use its power to dispossess the present owners. This is frankly advocated by some of the Guild Socialists. It is to be done under the form of constitutional government, instead of in defiance of government. In the end, it will make little difference whether the force that is used to take property from one set of owners and give it to another is wielded by persons outside the government or by a perversion of government power.

If laborers want to own the shops in which they work, there is an honest way. It is the way by which they may own the houses in which they live, their clothes, their household furniture, or anything else that they have not themselves made. That is, to buy and pay for them as other people do. Even if they could take possession of the shops by force, they could only get repairs and replace wornout plants by this method. There is no sound reason why they should gain possession of existing shops in any other way.

One of the strongest examples of the perverseness of the human mind is the tendency to misstate, or to accept without challenge, the misstatement of others, regarding the relation of the worker to his tools. One of these misstatements is that the industrial revolution of the 18th century deprived manual laborers of the ownership of their tools. Of course it is impossible to deprive a person of ownership of something which he never owned. The new tools that came into existence with steam-driven machinery never were owned by manual workers. For the first time in history they are in process of becoming in this country largely the property of those who work with them. Another misstatement is that through government ownership, the workers would become, in effect, the owners of the plants in which they work. The employees in the city hall do not own the city hall; the public school teachers do not own the school buildings. The employees of the Federal Government do not own the buildings or the navy yards in which they work. Moreover, the employees themselves, in these publicly owned plants do not feel that they are working for themselves or show any more interest in their work than do the employees

in capitalist owned plants. A third misstatement is to the effect that property in tools, machines and industrial plants differs fundamentally from property in dwelling houses, furniture, clothing, cooking utensils and other things commonly classed as consumers' goods. If it is found desirable that any class should own its own dwelling houses, household furniture, or clothes, the method of purchase is open. If it is found desirable that another class should own the land, livestock, and farming implements with which it works, the method of purchase is alike open. If it is found desirable that still another class should own the factories, shops, tracks or rolling stock with which it works, the method of purchase is open in this case also. When these various people buy the property in which or with which they work, they acquire a genuine ownership, and they will at once realize a significant difference between this and government ownership.

Another misstatement is to the effect that modern industrial plants are too big to be owned by their own workers. The joint stock form of business organizations was not designed primarily for the benefit of manual workers, but it would not have been much different from what it now is if it had been. Neither State Socialism, Guild Socialism, Sovietism, nor the ordinary coöperative society presents a plan of organization so well suited to the needs of workers who desire to own their own plants as does the Joint Stock Corporation.

An interesting bit of practical experience with this form of organization was furnished many years ago by the Oneida Community. This community was formerly, as most of you know, a communistic society of the most idealistic sort, having been founded by a religious group who were known as perfectionists, and who believed that, for them, the Kingdom of God had already arrived. It continued as a communistic society for about thirty years and then changed over to a New York State joint stock corporation with a capital of $600,000, on a plan agreed to by all the members, whereby the shares in the new corporation were divided among men and women equally and according to years of membership in the community.[1] The business

[1] From a letter to the writer by S. R. Leonard, Vice-president of the Oneida Community, Limited.

of the community has grown to such magnitude that only a fraction of the work is done by actual members. However, they have been selling common stock to employees for a number of years. In 1913 the stockholders set aside for distribution 800 shares, par value $25 a share. Each year since then stockholders have made similar motions, the number of shares varying according to circumstances. This year the amount voted was 8,000 shares.

Here was a communistic society that was actually succeeding. Its business was growing and prospering. Yet its members decided that the joint stock form of organization fitted their plans better, and apparently fulfilled their ideals satisfactorily. It is mentioned as an illustration of the writer's belief that this form of ownership supplies the American laborer with all he needs if he seriously desires to share in the ownership of the plant in which he works.

As indicated above, the public service corporations showed a higher tendency than any other single class toward employee ownership. One reason for this is probably because in no other class of business does good will count for so much; or perhaps it would be better to put it thus: that in no other class of business does the ill will of the public prove so dangerous. "Where the carcasses are, there will the eagles be gathered together." The politician, from his high aërial lookout, is always watching for evidences of popular discontent. Absentee ownership, whether of land or other property, is universally a source of dissatisfaction and irritation. In the case of absentee landlordism, it has never yet failed to produce friction and hostility between the resident population and the absentee land owners, but this result and the conditions which produce it are not peculiar to agricultural people. They are found in the case of urban property and urban business, as well as in the case of rural property and rural business. We may approve or disapprove but we cannot deny the fact that absentee owners of any business furnish the conditions on which the demagogue thrives. In the case of public service corporations he has a peculiar hold upon the business. In a democracy we cannot get rid of the politician. The only alternative is, so far as possible, to substitute resident ownership for absentee ownership.

The form of resident ownership which is most disconcerting to the politician is that which is known as employee and customer ownership. When the employees of a traction company own a large part of the business, the politician cannot appeal to the feeling between capital and labor, because the laborers are their own capitalists. If there were no other reason in favor of employee ownership this would be sufficient to justify it. Customer ownership in other cases, such as telephone companies, accomplishes the same purpose. The attempt to combine employee with customer ownership may have its difficulties. The interests of customers and employees are sometimes in conflict. This may lead to complications and stimulate party politics among the shareholders, but we may well run the risk of this if we can only avoid the menace of that bane of every constructive business—the cheap politician.

Another reason why public service corporations are suitable for the experiment of employee ownership is that the product is locally consumed and the employees therefore can easily visualize the business problem of marketing. In a sense, every street car conductor is a salesman for the street car company. He is in direct contact with the customers of the company. If he is not only a worker but a part owner in the company, he can be expected to become a somewhat better salesman, or at least to be somewhat more eager to please the public with whom he is in daily contact. The workers in a shop who produce a commodity that is not consumed locally but sold over the entire world are not likely to visualize quite so clearly the strictly business problems which the company faces. There is some slight danger that employee ownership in a case of this kind might result in short-sighted policies unless the employees are unusually intelligent. Even this danger could probably be overcome by taking somewhat greater pains to acquaint the employee shareholders with the business problems involved in marketing the product than would be necessary if the shares were all held by a few expert or far-sighted business men.

CALVIN COOLIDGE

THE ADVERTISING PROFESSION

The following speech was delivered at the annual convention of the American Association of Advertising Agents at Washington, D. C., on October 27, 1926. This address may well become a classic for the advertising profession. Other addresses by President Coolidge and a biographical sketch will be found in Volume I.

MEMBERS OF THE ASSOCIATION: Sometimes it seems as though our generation fails to give the proper estimate and importance to the values of life. Results appear to be secured so easily that we look upon them with indifference. We take too many things as a matter of course, when in fact they have been obtained for us only as the result of ages of effort and sacrifice.

We look at our economic condition upon which we are absolutely dependent for the comforts and even the necessaries of life, and forgetting that it all rests on industry, thrift, and management, dismiss it lightly as a matter that does not concern us. Occasionally our attention is directed to our political institutions, which have been secured for us through the disinterested exertion of generations of patriotism, and, going along oblivious to the fact that they are the sole guarantees of our rights to life and liberty, we turn away with the comforting thought that we can let some party committee attend to getting out the vote and that probably the Government will run itself all right anyway.

Then perhaps we are attracted by the buildings erected for education, or the temples dedicated to religious worship, and without stopping to realize that these are the main source of the culture of society and the moral and spiritual life of the people we pass them by as the concern very largely of schoolmasters and clergymen. We have become so accustomed to the

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character of our whole, vast, and intricate system of existence that we do not ordinarily realize its enormous importance.

It seems to me probable that of all our economic life the element on which we are inclined to place too low an estimate is advertising. When we come in contact with our great manufacturing plants, our extensive systems of transportation, our enormous breadth of agriculture, or the imposing structures of commerce and finance, we are forced to gain a certain impression by their very magnitude, even though we do not stop to consider all their implications.

By the very size and nature of their material form they make an appeal to the senses, even though their import does not reach the understanding. But as we turn through the pages of the press and the periodicals, as we catch the flash of billboards along the railroads and the highways, all of which have become enormous vehicles of the advertising art, I doubt if we realize at all the impressive part that these displays are coming more and more to play in modern life.

Even the most casual observation, however, reveals to us that advertising has become a great business. It requires for its maintenance investments of great amounts of capital, the occupation of large areas of floor space, the employment of an enormous number of people, heavy shipments through the United States mails, wide service by telephone and telegraph, broad use of the printing and paper trades, and the utmost skill in direction and management. In its turnover it runs into hundreds of millions of dollars each year.

Advertising the Life of Trade

When we stop to consider the part which advertising plays in the modern life of production and trade we see that basically it is that of education. It informs its readers of the existence and nature of commodities by explaining the advantages to be derived from their use and creates for them a wider demand. It makes new thoughts, new desires, and new actions. By changing the attitude of mind it changes the material condition of the people.

Somewhere I have seen ascribed to Abraham Lincoln the statement that "In this and like communities public sentiment is everything. With public sentiment nothing can fail; without it nothing can succeed; consequently he who molds public sentiment goes deeper than he who enacts statutes or pronounces decisions. He makes statutes and decisions possible or impossible to be executed."

Advertising creates and changes this foundation of all popular action, public sentiment, or public opinion. It is the most potent influence in adopting and changing the habits and modes of life, affecting what we eat, what we wear, and the work and play of the whole nation. Formerly it was an axiom that competition was the life of trade. Under the methods of the present day it would seem to be more appropriate to say that advertising is the life of trade.

Two examples of this influence have come to me in a casual way. While I cannot vouch for the details, I believe in their outline they are substantially correct. One relates to an American industry that had rather phenomenal growth and prosperity in the late '80s and early '90s, being the foundation of one or two large fortunes. In its development it had been a most generous advertiser. A time came when various concerns engaged in this line of manufacturing were merged and consolidated. There being no longer any keen competition, it was felt that it was no longer necessary to explain to the public the value of this product or the superiority of one make over another. In order to save the large expense that had been made for that purpose, advertising was substantially abandoned.

The inevitable result followed, which all well-informed trade quarters now know would follow. But the value of advertising was not so well understood twenty-five or thirty years ago. This concern soon became almost a complete failure. As I recall, it had to be reorganized, entailing great losses. This line of trade was later revived under the direction and counsel of some of its old managers, and with the proper amount of publicity became a successful enterprise.

Makes for Better Living

But let us turn from the unfortunate experience of the loss that occurred through lack of advertising to an example of gain that was made through the shrewd application of this principle. In a somewhat typical American community a concern was engaged in an industrial enterprise. Its employees were not required to be men of great skill. Oftentimes they were new arrivals in this country who had been brought up to be accustomed to the meager scale of living abroad. Their wages were not large, so that under the American rate of wages they found it possible to supply themselves and their families without working anywhere near full time. As a result, production was low compared with the number employed and was out of proportion to the overhead expense of management and capital costs.

Some fertile mind conceived the idea of locating a good milliner in that community. The wares of this shop were generously advertised through window display, newspaper space, and circularization. I suppose that every head of a family knows that a new bonnet on the head of one of the women in the neighborhood is contagious. The result in the community almost at once was better wearing apparel for the women, which necessitated more steady employment for the men. The output of the plant was greatly increased, its cost units were reduced, its profits were enlarged, it could sell its product to its customers at a lower figure, and the whole industry was improved. More wealth was produced.

But the reaction went even further. The whole standard of living in that locality was raised. All the people became better clothed, better fed, and better housed. They had aspirations, and the means to satisfy them, for the finer things of life. All of this came from the judicious application of the principle of advertising.

The system which brought about these results is well known to the members of this association. You have seen innumerable instances where concerns have failed through lack of advertising, and innumerable others where they have made a suc-

cess through the right kind and amount of publicity. Under its stimulation the country has gone from the old hand methods of production, which were so slow and laborious, with high unit costs and low wages, to our present great factory system and its mass production with the astonishing result of low unit costs and high wages. The preëminence of America in industry, which has constantly brought about a reduction of costs, has come very largely through mass production. Mass production is only possible where there is mass demand. Mass demand has been created almost entirely through the development of advertising.

Demand Must Be Created

In former days goods were expected to sell themselves. Oftentimes they were carried about from door to door. Otherwise, they were displayed on the shelves and counters of the merchant. The public were supposed to know of these sources of supply and depend on themselves for their knowledge of what was to be sold. Modern business could neither have been created nor can it be maintained on any such system. It constantly requires publicity. It is not enough that goods are made, a demand for them must also be made. It is on this foundation of enlarging production through the demands created by advertising that very much of the success of the American industrial system rests.

It will at once occur to those who have given any thought to these subjects how important it is to the continuing success of the business which this gathering represents, and to the general welfare of the country, that the conditions under which these results have been secured should be maintained.

It is our high rate of wages which brings about the greatest distribution of wealth that the world has ever seen and provides the enormous capacity for the consumption of all kinds of commodities which characteristizes our country. With our improved machinery, with the great increase in power that has come from steam and electricity, with the application of engineering methods to production, the output of each individual engaged in our industrial and agricultural life is steadily in-

creasing. The elimination of waste through standardization has been another most important factor in this direction.

If we proceed under our present system, there would appear to be little reason to doubt that we can continue to maintain all of these high standards in wages, in output, and in consumption indefinitely, and with our home markets as a foundation increase our foreign commerce by a greater exchange of those commodities in which we are peculiarly favored for the commodities of other nations in which they have a special advantage. But nothing would appear to be plainer than that this all depends upon the maintenance of our American scale of wages, which is the main support of our home market.

It is to be seen that advertising is not an economic waste. It ministers to the true development of trade. It is no doubt possible to waste money through wrong methods of advertising, as it can be wasted through wrong methods in any department of industry. But, rightfully applied, it is the method by which the desire is created for better things. When that once exists, new ambition is developed for the creation and use of wealth.

The uncivilized make little progress because they have few desires. The inhabitants of our country are stimulated to new wants in all directions. In order to satisfy their constantly increasing desires they necessarily expand their productive power. They create new wealth because it is only by that method that they can satisfy their wants. It is this constantly enlarging circle that represents the increasing progress of civilization.

Exact Truth Essential

A great power has been placed in the hands of those who direct the advertising policies of our country, and power is always coupled with responsibilities. No occupation is charged with greater obligations than that which partakes of the nature of education. Those engaged in that effort are changing the trend of human thought. They are molding the human mind. Those who write upon that table write for all eternity. There can

be no permanent basis for advertising except a representation of the exact truth. Whenever deception, falsehood and fraud creep in they undermine the whole structure. They damage the whole art.

The efforts of the Government to secure correct labels, fair trade practices, and equal opportunity for all our inhabitants is fundamentally an effort to get the truth into business. The Government can do much in this direction by setting up correct standards, but all its efforts will fail unless it has the loyal support of the business men of the nation. If our commercial life is to be clean and wholesome and permanent in the last resort, it will be because those who are engaged in it are determined to make it so.

The ultimate reformers of business must be the business men themselves. My conception of what advertising agencies want is a business world in which the standards are so high that it will only be necessary for them to tell the truth about it. It will never be possible to create a permanent desire for things which do not have a permanent worth. It is my belief that more and more the trade of our country is conforming to these principles.

The National Government has a large interest in all these problems, though many of them are confined in their jurisdiction to the States. The general welfare of the country, its progress and prosperity, are very intimately connected with the commerce that flows from agriculture and industry. Unless that be in a healthy condition, constantly expanding, securing reasonable profits, employment begins to fall, sooner or later wages begin to fall, markets are over-supplied, movements of freight decrease, factories are idle, and the results of all these are that want and distress creep into the home.

Prosperity More General

You can easily draw the converse of this picture. It has been the almost universal experience in American life of late. Local conditions here and there have brought contrary results, probably unavoidable for a long time to come, but in the main the country has been and is prosperous. Perhaps the most credit-

able aspect of our present prosperity is that wages are high while profits have been moderate.

That means that the results of prosperity are going more and more into the homes of the land and less into the enrichment of the few, more and more to the men and women and less and less to the capital which is engaged in our economic life. If this were not so, this country could not support 20,000,000 automobiles, purchase so many radios, and install so many telephones. From a recent fear of being exploited by large aggregations of wealth, the people of America are learning to make such great concerns their most faithful servants.

This problem is not entirely solved yet. Here and there abuses occur, but business is gradually being taught that the only method of permanent success lies in an honest, faithful, conscientious service to the public.

You are familiar with the efforts which the Federal Government has been making to contribute to peace and prosperity during the recent reconstruction period. We are steadily reducing our national debt, cutting down the interest charges. We have released hundreds of thousands of people from the unproductive field of Government employment to the productive field of business life. The burdens of taxation have been so far removed that they are now for the most part lightly borne, and the disproportionate charges formerly made to supply the public revenues have been released to flow into the avenues of trade and investment.

We have supplied large sums for the rehabilitation of Europe and the financing of South America to the advantage of our foreign commerce, which now stands at a peace-time record. Through international covenants limiting naval armaments we have reduced the cost of national defense and made large guarantees to the peace of the world. All of this has been a program of constructive economy, beneficial alike to ourselves and to other people.

In making this economically possible, in spreading its benefits, in carrying its fruits into the homes of the land, advertising has supplied and will continue to supply a very important part. Without the advantages that accrue from that art these accomplishments would not have been possible.

The Spiritual Side of Trade

But Americans are never satisfied with the past or present. They are always impatient of the future. Our history has been that of an increasing prosperity. There always have been fluctuations in trade, but with our present system of banking and our enormous capacity for consumption such fluctuations will apparently be much less violent and are unlikely to sink to the level of depression. We cannot tell what a particular month or locality may develop, but over the broad face of our country seed-time will be followed by the harvest, the productive capacity will increase and our people will become more prosperous.

These results, however, cannot be considered as guaranteed by our material resources alone. They will accrue to us, not because of our fertile agricultural fields, our deposits of coal, iron, and precious metals, nor even from the present state of our development of trade, with its accompanying supports of manufacturing, transportation, and finance. We cannot rely on these alone. They could all be turned into instruments of destruction.

Our chief warrant for faith in the future of America lies in the character of the American people. It is our belief in what they are going to do, rather than our knowledge of what they are going to have, that causes us to face the coming years with hope and confidence. The future of our country is not to be determined by the material resources, but by the spiritual life of the people.

So long as our economic activities can be maintained on the standard of competition in service, we are safe. If they ever degenerate into a mere selfish scramble for rewards, we are lost. Our economic well-being depends on our integrity, our honor, our conscience.

It is through these qualities that your profession makes its especial appeal. Advertising ministers to the spiritual side of trade. It is a great power that has been entrusted to your keeping which charges you with the high responsibility of inspiring and ennobling the commercial world. It is all part of the greater work of the regeneration and redemption of mankind.

GEORGE BRUCE CORTELYOU

EFFICIENCY

Mr. Cortelyou has been since 1909 President of the Consolidated Gas Co. of New York. The first Secretary of the newly created department of Commerce and Labor in the Cabinet of President Roosevelt, he later became Postmaster General and still later Secretary of the Treasury. Some reference to his friendship with Presidents McKinley and Roosevelt is made in his speech "Men of Vision with their Feet on the Ground" printed in Vol. I of Modern Eloquence. This address on efficiency and organization was given at the 7th Banquet of the American Gas Institute held at the Hotel Astor, New York City, on October 22, 1914.

Mr. Toastmaster and Gentlemen:—You have asked me to say a few words this evening, and you have stipulated that they should relate to the gas industry. Other speakers, I am told, have been informed that they might give full rein to their fancy, it even being permissible for them to indulge in comments of a lighter vein; but I am to be severely technical.

Now, a prerogative of the toastmaster, among the many others he assumes, is to reach out and draft hard-working citizens to fill places as speakers in the after-dinner program. Once in a while you will find that the speaker will also assume some prerogatives, when once on his feet, with the toastmaster at his mercy for the time being—to say nothing of his audience—and so turn his remarks that their resemblance to anything technical becomes a mere figment of the imagination.

I used to think I was a newcomer in the gas industry, but I am beginning to feel a little differently about it now, partly I suppose because of the insistence with which I am asked to deal with the technical side of the industry. One in my position, however, cannot but feel, at least in one respect, as Sir Isaac Newton is said to have expressed himself toward the end

of his eventful life, that in all his researches and discoveries he seemed to himself but as a little child gathering pebbles on the seashore while the great ocean of truth lay undiscovered before him.

Don't expect me to speak to you to-night upon the strictly technical side of our business. Rather permit me to use the occasion for a few suggestions of a general character that may commend themselves to you or even if they do not at first, may stimulate thought along similar lines.

We represent a utility of the first magnitude, technically, commercially, publicly—one of the great industries of the world. In these busy and seething times, will it not be profitable to consider for a moment a few of our experiences in conducting our business? These experiences are not exceptional; they apply to all large business undertakings, and that is why I refer to them.

First of all, we have such organizations as the American Gas Institute, because they bring together for conference and consultation and good fellowship men engaged in similar lines of activity. If conducted wisely as this one is they make for efficiency—efficiency in manufacture and distribution, efficiency in public relations. Efficiency is a much abused word in these days. I think that many of us forget in our eagerness to secure it how much of value there is in what I may call the efficiency of simplicity. A name does not make a thing good or bad. We may have a business so conducted that the machinery appears to move smoothly, with results turned out with mathematical precision, and yet below the surface it may be hollow and little more than a beautiful shell. The spirit may have been ground out of it by the very keenness of the edge that you have put upon it. Since I have been back here in New York I have had suggestions as to efficiency of management made to me in communications that would have done discredit to a ten-year-old lad, or submitted to me in other ways with a crudeness and raggedness that proclaimed the authors to be signally lacking in the quality they would impart to others. This, mind you, from individuals of supposed standing or from organizations claiming to represent the last word in the teaching of efficiency.

I should be sorry, however, if these remarks should be construed as a reflection upon the profession of efficiency engineering. Certainly the world of modern business owes a great deal to that profession. What I have said is intended to apply only to the unfortunately large number of individuals who have gone into the business, after having failed, one would think, at everything else.

Efficiency? Yes, we are all seeking it, but it comes not by any royal road or through the medium of any heaven-born genius. Any scheme of efficiency that takes the heart out of the worker is a sham and a delusion. We must develop the human side as well as the mechanical side—the man and woman as well as the engineer or clerk.

Through efficiency we aim at results. Now there can be results which while on their face successful are as shallow as the kind of efficiency that secures them; that look merely to immediate financial gains, or, to go a step farther, coupled with financial gains, outward evidences of prosperity—as for instance, a handsome plant, spacious quarters, polished machinery, and all that. But unless you have looked far beyond these things into the public relations of your business, establishing your credit upon firm foundations, dealing with your customers frankly and justly, serving in a whole-souled and broad-minded way all the interests that center around your undertaking, your fine equipment and outward appearance of success are but another shell and the day comes when it will crumble and fall.

The public is coming to know and understand better many of our great industries. It will not avail for us to scream from the housetops that we are virtuous, but what will count will be genuine efficiency of management, frankly dealing with the public, and the discharge by managements of great enterprises of those duties of citizenship which so many of us at times are prone to neglect.

Efficiency, public service—neither will be secured by a multiplicity of laws or a multiplicity of organizations. We overdo the matter of law-making about one thousand per cent. As to organizations, the proportion is so large I would not undertake to compute it. I believe in organized effort, but I do not

believe that where two or three are gathered together it is necessary to have an organization. Every thought that enters into the mind of man seems to be organized now with a secretary, board of directors, an executive committe, and countless subcommittees. As soon as it starts business it begins to circularize the universe, and you and I receive these products of the human intellect, so-called, in our morning mail. Blessings upon the head of the man who invented the waste-basket! His birthplace should be sought out and commemorated and his statue should adorn the public squares of our principal cities!

Another obstacle in the way of efficiency is the habit we have of wasting our energies on non-essentials. For example, in every community there are some people who are not happy unless they are getting up some kind of public celebration. No event in the past is too unimportant to serve as an excuse for an elaborate and costly celebration, with its pageant, parade, banquet, souvenir program, and the like. The private citizen, as well as the city, state, or nation, is solicited to contribute, and cannot well refuse. Often the newspapers get out special editions. Fairs, expositions, anniversaries follow each other in bewildering confusion, and there seems to be no end. Now everybody will admit that there are certain outstanding events in our history which ought to be commemorated in a fitting manner, but like so many things really commendable in themselves we are tempted to push them to extremes and thus bring the whole practice into disrepute. I wish we might exercise a little more moderation and restraint in this direction as well as in some others.

Nor will efficiency or satisfactory results be secured by unwise restrictions which interfere with individual initiative, a tendency which has become too marked in recent times. Much of the legislation of the present day seems to proclaim the doctrine that prosperity must be shackled by a multitude of restrictive laws, rules and regulations; that individual success is a national peril; and that business can be developed and wealth created by suppression of profits. But the truth is that it was the open field and freedom of individual enterprise that pushed civilization across this continent, built our cities, bound the country together with railroads, and filled the banks and sav-

ings institutions with the money of the business man and his employees. Certainly no one would now contend that the abuses which grew up in connection with this wonderful commercial growth should not be removed by the most effective means; only, in removing them, we must guard against an excess of zeal which would subordinate the life of the patient to the success of the operation.

But what a relief it is, when one has such reflections, to turn to the work of an organization like this as one of the exceptions. Founded upon simple lines, conducted with sanity and judgment, helpful to its membership and helpful to the public, consulted alike by those engaged in the industry it represents and by governmental agencies representative of the public it serves, all who deal with it are assured that its management is an open book and its conclusions wherever given the result of honest, painstaking and intelligent effort to make progress along the lines of truth and justice.

LORD CUNLIFFE

THE BANK OF ENGLAND

Lord Cunliffe was governor of the Bank of England 1913–1918 during the World War. He was born in 1855; educated at Harrow and Trinity College, Cambridge, and became Director of the Bank of England in 1895. He was created First Baron of Headley in 1914. Upon our entrance into the War he visited the United States as an envoy from his country. This address was given before the New York Chamber of Commerce May 12, 1917, at a reception tendered to Mr. Arthur J. Balfour, Lord Cunliffe, and other members of the British Mission.

In introducing Lord Cunliffe, President Outerbridge of the Chamber of Commerce spoke as follows:

GENTLEMEN.—Mr. Balfour's slip about the ladies reminds me that when I first went to London as a young man I was fortunate in securing an introduction to a distinguished lady there. She was not very young, in fact she was rather old. Indeed she was quite gray. She was not very tall and in some aspects she had a rather forbidding appearance; but everybody loved her, everybody wanted to know her; and not to know her and not to be known by her was to argue one's self unknown. This lady had a title but I do not know if history records who conferred it upon her, but the title is known the wide world round and it will never die. That title was and is "The Old Lady of Threadneedle Street." [Applause.]

The last time I went to London in the summer of 1913, I was happily enabled to know her more intimately because at that time the Deputy Governor of the Bank of England was an old personal friend and business correspondent of mine.

Visiting the many departments of this great establishment, seeing its organization, the immense ramifications of its business, the enormous figures which its transactions reached, and hearing the history of how a few of the great financial crises had been handled, gave one an increasingly clear idea of how this Lady had become the Mistress of the financial markets of the world. Then I was taken into what was called the "Curio Room."

Among many interesting exhibits were two that particularly interested me. One was a Bank of England note that had been found in a book in a gentleman's library, where it had evidently been placed as a marker one hundred and fifty years before, and where it had remained undisturbed until for some reason this book was taken again from the shelf, when it opened at this place and the note was found, presented and promptly redeemed in gold at the Bank, and I believe it established a precedent as being the only note that had not been destroyed after a certain time had elapsed after its redemption.

I was also shown a frame containing two plates of glass between which were a number of little pieces of burnt parchment. These were fragments of a Bank of England note that had been gathered from the ruins of a fire and as it had been possible under the microscope to identify the tracery of the numbers on these bits of paper, which established it as a note of the Bank, the owner was enabled to receive gold in payment therefor. [Applause.] But gentlemen, these exhibits and their redemption we now know were not really curios, they were merely symbols of the high honor and noble character of a nation which is pouring out billions of treasure and is willing to sacrifice its last sovereign and its last son in the support of an obligation which another nation equally obligated has called "Nothing but a scrap of paper." [Applause.]

The steadiness with which the shock of war to world finance is met, the marshaling of the financial forces of a great nation and their use and distribution in the war's conduct, requires financial generalship of as high an order as is required of military and naval generalship in the handling of their forces.

Also I would remind you of that splendid old custom in England, an hereditary custom which has always been at once the admiration and the envy of every American man, namely, that the Englishman is Lord and Master in his own household; and so this Lady Mistress of financial marts has had her Master, this great center of mobilization of financial resources has had its General. He, too, like the banknote previously referred to, has broken a record in the history of this great Institution by having been elected to serve a third term and is now in command for a fifth year. [Applause.]

I now have the honor to present him to you, the Lord Cunliffe of Headley, Governor of the Bank of England. [Applause.]

MR. CHAIRMAN AND GENTLEMEN OF THE CHAMBER OF COMMERCE:—To you I need not apologize for my share in this great

war, although my part was not perhaps in the great affairs, but in the somewhat—I was going to say the despised, but not quite that—the ordinary and not always well considered part of arranging for the ways and means. Here in this great assemblage of business men, I feel that I shall have at any rate a patient hearing, and not be expected to attempt to popularize or try to explain the efforts that have so far been made to secure your help, but I do say that the result has been most successful.

Perhaps we might deal with the ways and means, as we will call it, of finance, in three classes: Finance proper—that is the collecting of the money; the issuing of prospectuses for the loans; and the dealing with the money that comes in. That has been my particular work, aided by the good Old Lady of Threadneedle Street that your Chairman has no nicely alluded to, together with all the officers there. Of course, I am not able personally to do very much of it. It was rendered extremely difficult by the foreign exchange, and the care we had to devote to it. Those cares, I hope, have practically been taken from our shoulders by your great nation. I say practically, but not entirely—at least that is my view of the matter. Certain people—great financiers I believe—before I left London, thought that the small committee called the London Exchange Committee, of which I have the honor to be Chairman, might now be dissolved; that there would be no further need for their services. I did not agree with that view, as I still believe that there will be ample scope for what talent they may possess.

In my opinion London should not now depend entirely on the United States. We should continue, as far as we are able, and to the end of our bent, to ship you gold, to sell you securities, and to try by every means in our power to pay fairly and squarely the debts that we have incurred in this country. [Applause.] That will at any rate be my endeavor, and I think that for our own sakes it is most important that we should strive as far as possible to keep money here cheap, in order that we may borrow it from you. [Laughter and applause.] I did not intend to smile, I was quite serious. Cheap money means good trade, if it is not too cheap.

I do think that as far as you are able, you should strive to carry on the great trade of this country, not only for your own sakes but for ours. I will be very sorry, as far as our financial problems are concerned, if we do anything to reduce or curtail the trade of this great nation.

I would refer for a moment to a statement which I heard in the House of Commons, just after the war began, when somebody in the course of a debate, twitted Mr. Lloyd George, then Chancellor of the Exchequer, by saying that although he was complaining of his arduous duties as Chancellor, he would not like to exchange positions with the German Chancellor. Well, he agreed, and seemed pleased that he was not the German Chancellor; but I am not so sure that for the period of the war the English Chancellor of the Exchequer has not more difficult problems to solve than the German Chancellor. The exchange problem does not, I fancy, at present trouble the German Chancellor. Well, let us wait till after the war and then I hope and believe their difficulties will be increased a hundred-fold more than ours. [Applause.]

I was greatly honored by my government in being allowed to come out here. It has been the dream of many months that I should come to the States and see the people of whom I had heard so much. I was sent here, as you all know by this time, not for my power of making addresses and speeches, but because it was considered that perhaps I knew as much of the inner workings of our financial efforts in London as anyone else, and might be able to answer questions and explain what we had been doing as well as any of my neighbors.

I arrived in Washington just before the $200,000,000 in Treasury notes were sold and the proceeds collected by the Federal Reserve Banks. They were good enough to go through with me the means they had taken not only to withdraw that money from the market, but to replace it on the market without delay. Gentlemen, the arrangements were so complete that I had not a word or a hint of a suggestion to give. [Applause.] It proves how extraordinarily complete those arrangements were, that the money rate here in New York in the morning was two per cent, in the middle of the day it rose to four per cent, and in the evening it went back to two and a half per cent.

What more splendid financial transaction could be accomplished?

I have just returned from a visit to the Middle West where I have interviewed and talked matters over with prominent bankers and other men, and on every hand I found them only too anxious to do everything in their power to facilitate the enormous loans which you are asking for, and of which I hope you will give us a part. Everywhere they are getting up committees, arranging for extra clerks, taking additional floor space, and doing everything that with all my experience I could possibly have suggested. Indeed, from that point of view, my visit to the Middle West has been an absolute failure. I have been of no use to anybody, and I am afraid I will have been of no use when I leave New York. You all seem to be thoroughly alive and prepared, without any suggestions from me. I hope my government, when I get home, will not ask me any pertinent questions such as: "Have you been of any use to anybody?" [Laughter.]

We divide the work of war into three parts: There is the fighting element, or, as we put it, the glorious spending element. It is glorious spending. We of the second element have got to find the money for it. They have to bear the kicks, the blows, the wounds, and perhaps even death. We don't grudge them the money. We have to put up with smaller incomes, and with much more work, but that is nothing. The army and navy must be first. They must be the ones to be considered first. After all, what matters? We must live our lives, we must carry out what we are here for, and the best way we can, and we must not grumble. The third part, the fixing of taxes, I am thankful to say I have nothing whatever to do with. Questions have been put to me since I landed here, such as what taxes should be levied? How should the taxes be levied? I am glad to say that I have nothing to do with that, for the Governor of the Bank of England at home is not even consulted in such matters.

Now, I am afraid I have delayed you a long time, but I would make this remark, gentlemen: Do not fall into the error which we did at home, of underrating our foe. I am afraid we did so at the beginning. Financially, I am certain we did.

Our foes were well prepared. They had all their economies well cut out, planned and everything ready. They even had meat tickets and bread tickets provided. If we had only taken the thing boldly during the first few months of the war we should be in vastly better position to-day. Of course, the same thing does not apply to you here in America, because you support yourselves and more than support yourselves with foodstuffs and the other necessaries of life. We have to buy them all from you and from other countries. Therefore, it is very much more important for us to economize than for you. Still I would venture to remind you that nobody knows how long this war is to continue, and that if you are to put up the notice "Business as Usual," I would suggest that extravagances should not be as usual. [Laughter and Applause.] If by any lucky chance the economies are not needed and the war should come to an end very soon, how easy it will be to slip back into the old ways and the old luxuries.

Gentlemen, as a great statesman or diplomatist always has to gauge the minds, the feelings and the hearts of the people with whom he has to deal and the country to which he is accredited, I think that all really intelligent business men should try to gauge the feelings of their clients and those with whom they come in contact. From the beginning of this war I tried to gauge the American mind, and was sure that sooner or later our countries would be together. At times when that awful bugbear, the "exchange," was going against us, and I hardly knew what to hope, there were times when I asked myself, Can I be wrong? Can I have wrongly gauged the American heart? No, gentlemen, I am thankful that I was right: that we are to remain, not only we business people, but our soldiers and sailors, fighting shoulder to shoulder with one great object; to bring this terrible war to a glorious and definite termination. [Prolonged Applause.]

CHARLES GATES DAWES

BUSINESS ORGANIZATION OF THE GOVERNMENT

Charles Gates Dawes was born in Marietta, Ohio, in 1865. He was admitted to the bar in 1886. He was Comptroller of the Currency in 1897–1902 and has been President of the Central Trust Company of Illinois since 1902. He was commissioned Major of the Engineers in 1917, served in France and later became Brigadier General and General Purchasing Agent for the A. E. F. His great services in the War led to his appointment by President Harding as director of the Federal Budget System in 1921. Following his success in establishing a Federal budget he was appointed to the Committee of Financial Experts which afterwards became known as the Dawes Committee and established the Dawes Plan for Germany. An account of his services on this committee is given in the address in Volume V by Mr. Owen D. Young on the Dawes plan. Mr. Dawes was elected Vice-President of the United States in 1925. He entered upon his task with vigor, and his outspoken and picturesque speeches won the immediate attention and approval of the public. The address which follows was made at the second semi-annual meeting of the Business Organization of the Government held in the Continental Memorial Hall in Washington.

President Harding was the first speaker and at the conclusion of his address he spoke as follows:

I wish I might personally express appreciation and gratitude to every individual member of the coördinating forces and all of those who have been contributing to the notable success of the Budget. Sometimes, aye oft-times, the Government compensates inadequately, and there is scant expression, if any, of that gratitude and appreciation which have been so well earned; but there must come to you that finer and dearer return which is the highest compensation men may know in the public service—the consciousness of a good work accomplished.

I suspect sometimes there are public servants in more conspicuous positions who find themselves momentarily discouraged by

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a lack of public understanding of the difficulties of their tasks and an ungenerous appraisal of things accomplished. Sometimes it is partisan, sometimes it is ignorance, not infrequently it borders on the malicious, which is designed to create unrest, and when I contemplate the unresisted flow of extravagance and the tendency to drift the ship of state on the rocks of bankruptcy which is far too prevalent throughout the world, I must express to every one of you and to all in authority who have assisted you my appreciation for the splendid work done in bringing the Government business activities back to a state which intelligence may approve.

Perhaps other Governments were brought to greater strains of expenditure and more difficult financial straits through their more intimate and heavier burdens of war; and notwithstanding that fact, and that we have suffered less comparatively, I doubt if any Government in the world has made a more persistent and conscientious endeavor to cut down its expenditures and institute economies and restore sane and normal ways again.

You have inaugurated a very practical work of exceedingly great importance, and the results have been so gratifying and have proven of such advantage to both the Government and the public that I am taking this opportunity of openly uttering to you the assurance of my appreciation and gratitude.

Now, if I may, I want to call to the presiding position the one genius whose devotion and personality and capacity have been the inspiration of the great success of the budgetary system, Gen. Dawes. [Applause.]

MR. PRESIDENT, GENTLEMEN OF THE COÖRDINATING BOARDS, AND MEMBERS OF THE BUSINESS ORGANIZATIONS OF THE GOVERNMENT:—It is a great handicap to a business man, in a business meeting, called to discuss routine business, to have this kind of an introduction; to be surrounded by this intangible, imponderable atmosphere of dignity and restraint which pervades important Government gatherings and which, unless dissipated, always interferes with the proper meeting of minds in business conference. The members of the business organization of Government gathered here must not think of business in its relation to personal dignity or in its relation to personal prerogatives just because it has been done in Government business for over a hundred years. Despite these formal surroundings, despite the depressing psychology of a gathering of very high Government officials, I must regard the President of the United

States here to-day, not as one engaged in carrying out great policies of State, or the members of the Cabinet as his advisers upon these great policies, but as the head of a routine business organization and the members of the Cabinet as nothing but the administrative vice presidents of this organization, who heretofore, because of the absence of leadership and because of a system for which they were not to blame, have, with their predecessors, allowed a disgraceful and extravagant system of routine business to obtain in this Government for 130 years—a condition which President Harding started to rectify when, last June, six months ago, he called together the first meeting of the business organization of Government in the 130 years since its establishment.

There is no reason why, because the Government of the United States does the largest business in the world, it should be the worst conducted. What I want you to do is to listen to a discussion of simple business principles in a simple way, just as if we were members of a smaller corporation, meeting not in the peace conference room, but in a business office, with only ordinary men around, discussing only ordinary things—to get attuned to that kind of an atmosphere—and not to have our thoughts diverted because the President of the United States is here, or the press is here, or all these uniforms are here, and all these other conditions that do not embarrass an ordinary business meeting.

Now, at the first meeting of the Government business organization last June the President assumed, for the first time, his position of responsibility as the head of the business organization of Government. At that time there was no adequate machinery in the hands of the President for the transmission of Executive will and policy in the matter of routine business to the body of the business organization. That first meeting, therefore, was devoted to an effort on the part of the President to arouse the business organization to the overwhelming necessity for economy in governmental expenditures—to bring to each man the essential fact that he would be held personally responsible for participation in such a program. He let you know then that at the end of the year he would check you up, just as if he was in charge of a private business organization,

to find out whether you had carried out his policy. That sort of pressure had its effect upon this great organization, and at the end of 30 days, during which you made a careful examination to determine the possibilities, you promised him that you would reduce your expenses in the sum of $112,000,000 per year. He continued this pressure, having in the meantime established agencies for such continuing imposition in the shape of these great coördinating boards, the representatives of which sit before you.

At the time the President commenced this effort the forecast of governmental expenditures for the present fiscal year, made by the heads of departments and establishments who had formulated their demands before Executive pressure had been instituted, amounted to the sum of $4,550,000,000. As a result of pressure, the President was able to announce in December that, instead of a reduction of only $112,000,000 first promised him, the reduction, including $170,000,000 of public debt postponement, would be nearer $576,000,000, and that we would undertake to run the Government for the fiscal year 1922 on the sum of $3,974,000,000 instead of $4,550,000,000.

The imposition of Executive pressure immediately removed the chief cause for the riotous extravagance in Government business which had theretofore run without a head, and where the chief object of every man connected with it seemed to be how much money he could get for the plans of his individual department, instead of how little he could get along with in carrying out a policy imposed by the President, who thought in terms not of departments, but of one Government responsible to the public.

After this first meeting of the business organization, where, just as in private business the President imposed policy, there followed the creation, by Executive order, of these coördinating agencies, which not only transmit Executive policy and plan, but which become gatherers of information as to the business of Government from the bird's-eye view, which, presented to him, assists him in his formulation of a unified policy. What the President did in creating these coördinating boards was a simple thing in the business world. He selected, not from strangers, but from the body of the existing business

organization, men of experience in the business, with acquaintance in the business, with qualifications developed by continued contact with the business organization, and formed committees, imposing over them the authority of an agent representing Executive authority.

There is no finer body of business men in this country than these underpaid men of talent confronting me, who find in their public service a satisfaction which private employment cannot give. Let me say something here. These coördinating boards are not boards in the common acceptation of that word. They do not act as boards, either by majority vote or otherwise. They have no personnel. Authority lies only in the Chief Coördinator, who presides over them, acting under Executive authority. His power lies through orders of coördination alone, and from his orders there is always preserved the right of appeal of the head of a department or establishment to the Chief Executive himself. I mention this because these coördinating agencies have been established in accordance with law, and all the steps in the reorganization of the routine business of Government have been taken with most careful regard to existing law. It may not seem so, but we in the Bureau of the Budget try to be the most cautious people in Washington. Every time we consider a new move we expect to have some old and forgotten law confront us which, if we walk over it, like a mine in the Argonne battle field left by the enemy would explode under us. In every important step taken before we act, we secure a departmental interpretation of law, and I say to you now, with deep regret, that in connection with official interpretation of law the mental status quo of legal advisers often seems one of enthusiastic support of the old status quo in Government business and in the interest of the plans of departments as distinct from the new plan of a unified system for the whole Government.

Until the President assumed his attitude of responsibility for a unified plan, the attitude of everybody from Cabinet, department heads, and bureau chiefs down to clerks has always been one of hostility to anything which interfered with the plan of their separate jurisdictions, irrespective of the demoralizing effect of such an attitude upon the business interests of the

Government which they have sworn to serve. They have not been to blame for it; lack of system has been to blame for it; and for that lack of system the past Presidents of the United States have been to blame, for any one of them could have established a proper ystem.

The suggestion was made by some one the other day that in selecting these coördinators and agents from the body of the business organization to transmit his policies it would be impossible for the President to get men who would give him impartial judgments in connection with the imposition of a unified plan of business, because of their former allegiance to the particular department from which they were chosen—that he could not depend upon them for that absolute impartiality between the departments which is necessary in the work to which he called them. What folly! Has the President of the United States less power over his business organization than the president of a private organization? Need he be afraid, with his immense powers over personnel, including the heads of departments and establishments, to rely upon the loyalty of these agents? As the head of a bank, in selecting agents to transmit my policy, would I hesitate to call into my office service a man from the trust department, or the foreign exchange department, or the discount department, to use him in gathering information and transmitting policy, because I would fear that this man would be more loyal to the head of the discount department, or the trust department or the foreign exchange department than he would be to me, and would I, therefore, go out into the street and hire Tom, Dick, and Harry, who knew nothing about the business, to do the work in his place?

The only reason we have gotten anywhere in this business reorganization of government is because we have not only completely absorbed, but I say completely demonstrated, the truth that the proper machinery with which to run governmental routine business must be similar to the machinery to run private routine business.

I say "demonstrated" because the President has told you that these coördinators, who are already in the Government service, and who, in the aggregate, draw only $109,000 per year compensation, have, in about four months, effected meas-

urable direct cash savings to the Government of over $52,000,000, and directly and indirectly about $100,000,000.

In routine business there should always be but one head. In our republican form of government our Constitution provides a system of checks and balances which protect the liberty of the people in connection with the determination of governmental policy. In a free government like ours there is no central control in determination of general policy, but after policy is established under the methods prescribed by the Constitution, then in the routine business of government, concerned with the expenditure of money to carry out policy, the principle of one central control must obtain or you will go back to the riotous extravagance which has characterized governmental routine expenditure in the past.

We in the Bureau of the Budget are not concerned with matters of policy. The President, advised by the Cabinet, and Congress determine the great questions of policy. As for us, we are men down in the stokehole of the ship of state, and we are concerned simply with the economical handling of fuel. The President and Congress determine which way the ship sails, for that is a matter of policy, but we in the hold of the ship have something to do with how far she can sail through the way in which, in our humbler place, we apply commonsense business principles.

These coördinators do not have their eyes upon the press gallery. And here I want to say something to the representatives of the press here present, as an expression of my deep appreciation of the fact that they have treated this new system of coördinating routine business in a constructive way—that they have not bothered it in quest for scandal. You members of the press, as faithful American citizens, are just as much interested in the success of this effort to save money for the Government and to increase efficiency as is the President of the United States or the Director of the Bureau of the Budget, and you are showing it. It would be possible for you to do incalculable damage if you were so minded, but, Heaven be thanked, we have been spared the attention of the destructive newspaper critic—that kind of destructive critic who encourages public men to exploit their pitiful personalities at the ex-

pense of the public service by throwing monkey wrenches into usefully moving machinery. I would as soon invite one of that kind of newspaper men to a business meeting like this as to put rat poison in my breakfast food.

Now that we have this formal atmosphere dissipated and are down to matters of plain business common sense, just as if we were sitting in an ordinary business meeting, I am going to talk with perfect freedom to the members of the Cabinet as simply members of this business organization. I confess it is not easy to regard Secretary Hughes, for example, as anybody but the great Secretary of State, who, in the last few months has done so much for the world and for the future peace and happiness of humanity. That is the trouble down here in routine business. That is the trouble that our coördinators have. We have to rid ourselves of the idea that because Mr. Hughes is a man to whom the President of the United States and the world owe a debt he is not a proper subject for that power of Executive control which, in his capacity as one of the administrators of routine business of Government, must tie him into a routine business organization and enable him to save money. Mr. Hughes is so intelligent that we have no trouble in our relations with him. But this is not saying we do not have trouble with some officials of this Government in less important positions.

I do not want to compare for a minute our work down in the stokehole of the ship with the work of those who are bringing better conditions of life and safeguarding the tranquillity of the world in connection with this peace conference, but I will say to you that in our work we will save to the taxpayers of the country every year double the amount that can be saved by the plan for the limitation of armament. And these business matters are, therefore, important enough to properly engross the attention of even the Secretary of State, the Secretary of the Navy, and every other member of the Cabinet.

I want to say here again that the Budget Bureau keeps humble, and if it ever becomes obsessed with the idea that it has any work except to save money and improve efficiency in routine business it will cease to be useful in the hands of the President. Again I say, we have nothing to do with policy.

Much as we love the President, if Congress, in its omnipotence over appropriations and in accordance with its authority over policy, passed a law that garbage should be put on the White House steps, it would be our regrettable duty, as a Bureau, in an impartial, nonpolitical, and nonpartisan way to advise the Executive and Congress as to how the largest amount of garbage could be spread in the most expeditious and economical manner.

That is not humorous. That is intended to serve notice on those who would seek to make political capital against this routine business reform of the President that the success of the Budget Bureau depends upon our integrity and sincerity in a determination to be nonpartisan, nonpolitical, and impartial. Whatever may be the political complexion of Congress, or the party affiliations of a President, this impersonal business agency of the Budget Bureau, and these coördinating boards, concerned not at all with policy, must endeavor to see that the money of the Government is spent in the most economical manner in routine administration along the lines of policy which are adopted by those charged by the Constitution with the duty of imposing them.

Now, let us look for a minute at a business matter. I have a criticism in my system which I must get out of it. And in this connection I must speak directly to the members of the Cabinet here, because in connection with this matter they are simply administrative vice-presidents of a business organization, and as a representative of the President, charged with pointing out things that are wrong, it is my duty to talk to them in this way.

I want to say first that I have no complaint to make of the splendid coöperation that we have had from the Cabinet. At the same time I do not hesitate to say that the reason why this Cabinet, in distinction from all others which have gone before, are coöperating in unifying routine business of the Government is not because their human nature is different from that of their predecessors, but because their personalities are irradiated by the determination of the Chief Executive to bring about common-sense methods in governmental routine business. It is right for me to say that. I look upon your

attitude as determined by the attitude of the President, and you would fail in the matter of coöperation with the President were it not for the existence of these coördinating agencies.

What I want to do in this discussion is to take, once and for all, from the realm of debate the principles underlying these coördinating agencies, the question of their necessity to the Cabinet as well as to the President, and their success in accomplishment. Now I am going to take an illustration from the Navy. I want to say, to start with, that I have nothing but a feeling of gratitude to you, Mr. Denby, and to your staff for the fine coöperation you have given us in our work. But I am going to show you by an illustration how you would have been unable to coöperate with the plan of the President had it not been for these coördinating boards. In connection with the Navy we have a bird's-eye view—as with all departments —of its relation to the whole Government business situation. The Coast and Geodetic Survey, which is a part of the Department of Commerce, needed two ships, and I wrote to the Secretary of the Navy, asking that he agree to the transfer of two mine sweepers from the Navy to the Coast and Geodetic Survey work.

I got back a letter from the Assistant Secretary of the Navy, stating that the Navy would not agree to release the ships. Now, under the old régime that would have ended it, but under the power which the President has given us to make a picture of the whole situation, we had information that the Secretary of the Navy did not have; and so, as the President's agent, I called over to my office the Assistant Secretary of the Navy. From information gathered by the impartial coördinating agents, I was able to tell him that the Navy had 49 mine sweepers in their possession, which were going out of commission; that their deterioration would be more rapid out of commission than in commission; that if they were loaned to the Coast and Geodetic Survey, these two mine sweepers would be kept in commission and, therefore, would not deteriorate so rapidly; that if a war should arise the Coast and Geodetic Survey could transfer them back. But, what was still more important, I told him that if the Navy did not transfer these mine sweepers to the Coast and Geodetic Survey, the President would have to

ask Congress for an appropriation of $1,000,000 to build new ships. The Assistant Secretary then took the letter back to the Navy Department and sent another one, acquiescing in the issuance of an Executive order transferring the mine sweepers to the Coast and Geodetic Survey. It was unnecessary for me to take this matter before the President, because the presentation of the bird's-eye view of the situation to an intelligent Secretary of the Navy resulted in this agreement.

But let us go a step further. When the Coast and Geodetic Survey went to get the ships they found them in process of repair, with engines disassembled. It developed that it would cost $10,240 to assemble the engines and place the ships in repair so that they could be used by the Coast and Geodetic Survey. Accordingly I wrote the Navy Department asking them to spend the $10,240 on the ships, since the Coast and Geodetic Survey had no appropriation which could be used for this purpose. The Navy Department again answered declining to repair the ships. Now, I am not criticizing especially the attitude of the bureau chief who was responsible for that declination. His mind was set upon saving money for the Navy, and it had never been directed toward the question of saving it for the Government, except as he might save it through the Navy. We had asked him to economize and save on the Navy appropriation, and he naturally did not want the money spent for something that did not accrue directly to the benefit of the Navy as he saw it. So again I called the matter to the attention of the Secretary of the Navy, pointing out that the saving of $10,240 of expense to the Navy to put these ships in proper condition, since the Coast and Geodetic Survey had no appropriation to do it, might result in a loss to the Government of $1,000,000 to build two new ships. The Secretary of the Navy then wrote saying that he would be very glad to put the ships in repair before delivery. Now in this matter we were doing a service to the Secretary of the Navy as much as we were to the President of the United States and to the Government of the United States, for we gave the Secretary of the Navy information which he would not have had otherwise, so as to enable him, by his action, to serve the best interests of the Government in a common situation.

How is it possible to run the routine business of the Government right unless these coördinating agencies are in existence to give the bird's-eye view of any given situation, so that the real interest of the Government in any transaction may be developed? Now, we have had fine coöperation from the Navy Department in the larger matters, and the President has transferred millions of dollars worth of ships from the Navy, with the acquiescence of the Secretary of the Navy. The higher officials of the Navy Department have shown the right spirit. I want to emphasize this, because I am now going to criticize an action of the Navy Department as indicating, along down the line in a particular instance, the lack of a proper spirit of coöperation.

Now, when I mention this do not forget that the Navy Department is the only department of the Government which has an audit of material; that Admiral Coontz was the first man, after the inauguration of the Budget Bureau, to send to his organization an appeal for renewed efforts for economy; that we have no criticisms to make of Secretary Denby and his department as a whole. As a rule, I do not think it is either good strategy or good economy to invoke the aid of pile drivers to smash fleas. But the example which I am going to give you, while it concerns a small matter, shows a lack of a spirit of coöperation which must be done away with, through Executive force if necessary. As coördinators, and not concerned with departmental administration, we have no power to fix the specifications in regard to material which you, as Secretary of the Navy, find it necessary to buy. But under the law we are charged with bringing to the attention of the Executive the necessity for improvements in methods of business wherever we find them. I am bringing to his attention an instance of a too rigid stand upon a technical departmental right, which has characterized only a few of our governmental officials since the inauguration of the President's reform, notwithstanding it characterized the attitude of practically everyone before it was inaugurated. I will say here in the Budget Bureau we try to be patient and we try to be humble. So far we have not made a charge against any of the departments for a lack of coöperation to the President of the United States. My coördinators

and I take our hats in hand and go around to the departments and try to stop trouble, and to plead for reasonable action, in order not to be justly charged with the misuse of the great authority which the President has given us.

Now, hand me those brooms. [The speaker was handed two brooms.] This may look like stage play, but it is not, because things like this have got to stop. Here is a Navy broom, made in accordance with Navy specifications. Here is an Army broom, made in accordance with Army specifications. Do you see much difference? As a matter of fact, the Navy broom is a little better than the Army broom. But what would you think of any business organization which would buy 18,000 of this kind of broom, as the Navy did, when it could have had 350,000 of this kind of broom for nothing? Suppose a thing like that had occurred in a private business organization? Would it ever be necessary to bring it before the entire body of the business organization at a semiannual meeting as an example to be avoided? I tell you, as a business man, that if a thing like that occurred in a private business organization, the mere knowledge of it in the body of the business organization would drive the man guilty of it out of his position. It was not you, Admiral Coontz, who was responsible for this, but some official along down the line who stood on his technical rights, although he could not but know that by so doing he was involving his Government in an unnecessary loss.

Now, the Marine Corps was in the market for shirts of a certain specification, and after about a month Col. Smither induced them to take 100,000 Army shirts instead of buying them in the outside market, and by so doing made possible a saving of $24,000. That seems small, and yet it was about one-fourth of the annual cost of these coördinating agents, who have saved directly and indirectly about $100,000,000 to the United States Government in a little over four months. We have to get the proper perspective in these things, and realize that the great savings come by making a large number of small savings. These small things involve great principles, and let nobody suppose that the President is not now in position to take notice of the relation of important small things to impor-

tant great things. He knew I was going to speak about these brooms to-day.

This reorganization of the routine business of Government is not something which is going to take place, but it has already taken place. I have had to mention flyspecks here, but fortunately, as compared with the results accomplished, they are only flyspecks. The general spirit of coöperation has been wonderful. Over $112,000,000 of surplus property of the Government has recently been transferred interdepartmentally. Yet at first I occasionally heard apprehension expressed by those connected with particular departments as to the effect upon their departments of the loss of the services of these few men who went on duty under the President as coördinators. Their protest reminded me of the plaintive call of the disturbed peewit when the underbrush in which it nested was being cut down to make way for some great public improvement.

In the light of the transfer of $112,000,000 of property, with a direct saving to the Government of $32,000,000, the proportion of this saving to be allotted to each particular department makes the amount involved in these salaries too trivial for them to talk about. Let us hear no more about the injury to the units in the magnificent results achieved for the whole. It has been necessary to bring everybody here to a realization of what has been done and is being done; to let them know that no instance of a lack of coöperation is too small to be brought to the attention of the Chief Executive. At the end of the year he will make up his efficiency report, never fear.

The members of this business organization must show a proper spirit of coöperation which is enjoined upon us by the President and in which 98 per cent of you are now enthusiastically joining with him. If the other 2 per cent along down the line who have been worrying the life out of our coördinators, do not take notice of this now they will certainly be brought to a realization of things by the Chief Executive. The same situation which the Chief Coördinator, General Supply, finds here obtains, for instance, in the United States Steel Corporation, or in any corporation which is made up of a large number of widely distributed units. This system of reorganized governmental business is such as obtains in private cor-

porations. Do not let anybody suppose that a corporation like the United States Steel Corporation doesn't have to deal with similar situations to those which pertain in governmental business administration. If they want to transfer surplus supplies from a subsidiary like the Illinois Steel Co. to the Carnegie Steel Co., do not think that they make the shop superintendent of the Illinois Steel Co. any happier than these bureau chiefs feel when material is taken from them and transferred to another department. A company like the United States Steel Corporation has a system of coördinated control by which a unified plan of business is imposed, and by which a bird's-eye view of the whole situation can be obtained. But our coordinators often have a much harder time in dealing with the bureau chief than a coördinator of the United States Steel Corporation has in dealing with a shop superintendent. It must be understood that even a lieutenant of the Army or Navy, whom the President has selected as a coördinator, is selected because of his ability and will be used as his agent in accordance with his ability, not necessarily in accordance with his military or Naval rank. It doesn't follow either, as a matter of course, that because a man is of high rank he is a man of high ability. In a business corporation we pick a man to handle brooms and soap by what he knows about brooms and soap, and not because of the markings on his shoulder straps. And however rank may decide the allotment of work to men inside departments, I assure you that ability and qualification for their work governs the President in his selection of coördinators. When the President selects them and clothes them in routine business with a portion of his authority, they must have the right of way, and they are getting the right of way in their work of developing information which will enable the President to continue common-sense methods in handling routine business.

We would not have the effrontery to suggest a change in the specifications of important technical material, but we have established a commission for the standardization of specifications, and there are a lot of standard articles which must be brought to standard specifications between the different departments. In order that the rights of the departments, can always be considered, if any member of a department differs

with the coördinator dealing with standard specifications, nothing can be done until the matter comes up to the President of the United States for a decision, who can then decide the matter with full information, not only as to the effect of any prospective action upon the department, but also as to its effect upon the Government as a whole.

To continue this great work we must all become imbued with the spirit of the President of the United States, who represents a people whose backs are bent under an immense load of taxation. Any matter which as a relation to the success of this task of the President of the United States is not only important enough to be discussed by members of the Cabinet and the body of the business organization, but it is important enough to inspire in every loyal citizen here—for we are all citizens first—a determination to live up to that high standard of effort which patriotism and love for country should always inspire in one in public service. The spirit of coöperation, in the vast majority of cases, will immediately come with a realization of how duty can best be done and under this system it is easy now, for the first time in the history of our Government, for a man to find out how to do his real duty in the routine business of our Government.

I am going to be perfectly frank and mention another disadvantage which the routine business organization of Government contends with. How is it possible for these Cabinet members, occupying their positions for much less than four years on the average, as experience shows, brought suddenly into control of a business of enormous magnitude, with which they have had no previous familiarity, consisting of many unrelated activities, engaging the services of tens of thousands of people occupied in technical activities of the most diversified kind—how can these Cabinet members really be very efficient in connection with discerning control of the routine working of their departments. It would take an ordinary business man almost a lifetime to properly familiarize himself with the routine business of any one of these great departments. And then, in the case of the Cabinet members, their time is largely concerned with the consideration of general policy as advisers to the President. They often go out and make speeches in ex-

planation of policy. They might be diverted and distracted by pressure for patronage. We might as well get down to brass tacks and face facts. These Cabinet members, to enable them to intelligently perform their duties, have to have the help of men who have been connected with the business for years not only inside their departments but through these coördinating agencies of ours outside their departments. I think the members of the Cabinet realize this. Ask a business man like John W. Weeks, of the War Department, who goes to his office at 8 o'clock in the morning and works steadily through the day, about our coördinating agencies and their usefulness to him.

I can not let this occasion pass without a tribute to the magnificent coöperation of the War Department, through Secretary Weeks; the Chief of Staff of the Army, Gen. Pershing; and the Assistant Chief of Staff, Gen. Harbord, without whose assistance, advice and coöperation our work could not have properly progressed.

There should be no natural antagonism on the part of any of the independent services to the President's coördinating services. Take the Secretary of the Treasury. Andrew W. Mellon is a business man, and no one is more anxious to recognize correct business principles than he is. Mr. Mellon will tell you that in his great department he has been able, in a year's time, to touch only the fringe of its routine activities. His back does not arch and his fur go up when our coördinators call on him. They called his attention to the fact that there were from 18 to 23 separate points of purchasing activity in the Treasury Department. So far from resenting the suggestion that these be coördinated so that the representative of the Treasury Department on the general coöperating board could properly speak for all the purchasing activities of the Treasury Department, he asked the Chief Coördinator, General Supply, to suggest a plan for its proper coördination.

Every department head should immediately give attention to coördinating his own department along the lines of the general coördination efforts now in progress by the direction of the President. The attitude of members of the Cabinet is, in our experience, that when a coördinating agent brings them information they seek to profit by it. And I say that along down

the line of business administration of Government, wherever arrogance or dignity or personal pride seeks to shut the door against the acquiring of information, there is real disloyalty to the President's plan. Pride of opinion is the great enemy, and humility in the presence of knowledge is the great ally, of all real progress in business.

In closing, I want to speak once more of the general results on the expenditures for the first six months of the fiscal year 1922—a matter to which the Budget law was not assumed to apply—of the imposition of Executive pressure by the President for economy and efficiency. It has taken the Budget Bureau a full month to determine, even in a general way, whether these six months' expenditures are within the forecast of $3,974,000,000 total expenditures for the year as compared with the $4,550,000,000 which the departments had at first stated was necessary.

And let me stop right here, in the presence of the Secretary of the Treasury, to criticize the disgraceful and archaic system which characterizes Government accounting. Gen. Pershing will remember that when he and I lived in Nebraska, about the time of the panic of 1893, a great many small merchants and business men out there kept only one book of account, and that was their check book. In other words, the only accounting knowledge which they had of their business was through their cash account. Whatever cash came in was treated as income. Whatever cash went out was treated as expense. After the panic of 1893 the sheriff took charge of what was left of the assets of most of these men, and out of that hard experience those of them who went into business again adopted better accounting methods.

The Government of the United States, like these merchants, has no balance sheet. For 130 years since its establishment the Treasury Department, acting for the Government, has kept only a cash account, and publishes only a cash account. What comes in is called income. What goes out is called expense. To illustrate—when the War Finance Corporation loans money for which it takes good security, and for which it retains a bill receivable, the money is checked out of the Treasury to make the loan, and the Treasury lists it as an expense. When the

Government sells real estate, which is a reduction in capital investment, it credits income. As a result of this archaic method, it takes a set of experts, at any given time, to inform the President or Congress as to what are the real expenditures of Government or the real income of Government. The same kind of bookkeeping formerly existed in the Shipping Board, but Lasker got out a balance sheet notwithstanding. There is nothing impossible about its correction. You do not want to allow a condition to exist in Government accounting under which it takes the Budget Bureau several weeks to figure out whether the United States Government for the first six months of a fiscal year, is living within its income. Get out your balance sheet, the capital items of which must at first be largely estimated. But it will be a starting point. The capital items can be corrected through gradual inventory. But from the time that balance sheet is started, so far as the current relation of real income and real expenditure is concerned, the Executive and Congress and the public can be kept informed.

Now, the best investigation which we can make shows that during this first six months we have lived within our forecast of $3,974,000,000 expenditures. I am very hopeful that the end of the year will show that we have more than done it, because I believe that the President's attitude in connection with economy and efficiency is being met by a loyal spirit of cooperation on the part of this great business organization, which has extended, through its influence, all over this great country. . . .

All this great work of coördination in all governmental routine business, notwithstanding the immense results already accomplished, is but in its inception. It has been my purpose to explain its importance; the fundamental nature of the principles which underlie it; its immense influence on the proper conduct of the business of the Government, both in the present and in the future; its absolute necessity as providing the only agencies in the hands of the President by which he can carry out his responsibilities as the head of the business organization. When the President becomes indifferent to this duty, and not until then, will its existence be in danger. With all the great burden of national and international policy upon his shoulders

he will still do his full duty to this organization. Shall not we all endeavor to do our duty to him and to this great Government which it is our privilege to serve? Will you not all rise with me while I pledge him again our united effort? [The entire audience rose. The President of the United States, followed by the Vice President and the members of the Cabinet, then rose.]

Mr. President, speaking for the body of the business organization of Government before you, for the Chief Coördinator, General Supply, and his staff, your agents, and for the activities represented here, we pledge the best that is in us to your service and that of the Government.

We pledge ourselves to carry out your policy of economy and efficiency in the conduct of the routine business of Government—to watch for small economies, knowing that in a business as great as this their aggregate will be enormous—to redouble our efforts to have the particular work in which we are engaged so carried on as not to handicap other departments to the detriment of the interests of the unified plan and method which you impose upon us—to look upon our work from the standpoint of good citizenship—to give to you and this Government which we love so well, as good, if not better, service than is commanded by private enterprise—to stand together, as man to man, in a common effort for a great common cause under your leadership.

THE PRESIDENT. I thank you very much, gentlemen.

HERBERT FRANCIS de BOWER

THE PRICE OF SUCCESS

H. F. de Bower, writer and speaker on business topics was born at Dane, Wisconsin, and graduated from the Law School, University of Wisconsin, in 1896.

I OFTEN wonder what it is that brings one man success in life, and what it is that brings mediocrity or failure to his brother. The difference can't be in mental capacity; there is not the difference in our mentalities indicated by the difference in performance. In short, I have reached the conclusion that some men succeed because they cheerfully pay the price of success, and others, though they may claim ambition and a desire to succeed, are unwilling to pay that price.

And the price is—to use all your courage to force yourself to concentrate on the problem in hand, to think of it deeply and constantly, to study it from all angles, and to plan: To have a high and sustained determination to put over what you plan to accomplish, not if circumstances be favorable to its accomplishment, but in spite of all adverse circumstances which may arise—and nothing worth while has ever been accomplished without some obstacles having been overcome: To refuse to believe that there are any circumstances sufficiently strong to defeat you in the accomplishment of your purpose. Hard? I should say so. That's why so many men never attempt to acquire success, answer the siren call of the rut and remain on the beaten paths that are for beaten men.

That's the price of success as I see it. And I believe every man should ask himself: Am I willing to endure the pain of this struggle for the comforts, the rewards, and the glory that go with achievement? Or shall I accept the uneasy and inadequate contentment that comes with mediocrity? Am I willing to pay the price of success? And the time to begin to pay is *now*.

CHAUNCEY MITCHELL DEPEW

A HALF CENTURY WITH A RAILROAD

Mr. Depew is one of the most accomplished, versatile, and experienced of American orators. He has delivered orations on notable occasions such as the opening of the Chicago Exposition in 1893 and the unveiling of the Statue of Liberty in New York Harbor. He has spoken in our legislative bodies and on the stump, and he has long been known as one of our wittiest and most graceful after-dinner speakers. In late years Mr. Depew's speeches have taken on a reminiscent cast. From the vantage ground of the eighties he has recalled the circumstances of an eventful life and many public events and persons. Several other speeches by him are given in Volumes I and VIII. Mr. Depew has had a distinguished career in public life. He was United States Senator from New York from 1899 to 1911; declined appointment as Secretary of State in the Cabinet of President Harrison; he received 99 votes for presidential nomination in the Republican National convention in 1888. The address which follows looks back on another field of his activity. He became attorney for the New York and Harlem R.R. in 1866 and for the New York Central and Hudson River R.R. three years later. He was general Counsel of this railroad in 1875 and President from 1885 to 1898. Since then he has been Chairman of the Board of Directors. He has also been director of many other railroad and banking corporations. This speech was given at the dinner for Mr. Depew by his railroad associates in honor of his 80th birthday at the University Club, New York, May 5, 1914.

Mr. Chairman and Friends:—All the celebrations which have been given in honor of my eightieth birthday have been most gratifying. Each one had its own peculiar significance, but this to-night from you, gentlemen, differs widely from the rest. There is an intimacy, brotherhood, both of time and conditions, which rarely exist.

I became connected with our New York Central Company

forty-eight years ago. January, 1916, rounds out my half century. There is no one living in any capacity who was in the service of the Company when I began. There is no executive officer of any railroad in the United States who is still active, who was one when I became President thirty years ago. All these are distinctions. It is hard to define precisely what constitutes a distinction. Methuselah was the oldest man who ever lived and that was his distinction. He might have claimed and probably did that his age was due to a well-spent life. The man who set fire to the Temple of Ephesus, at that time the architectural wonder of the world, accomplished his purpose which was to immortalize his name.

It is idle to enumerate examples, when there are so many among poets and historians, conquerors and philosophers, philanthropists and inventors, boy prodigies and old age wonders. Nevertheless, it is a distinction to be the longest of your line in any profession, pursuit or vocation, because there are many competitors and there is always a "bomb" with the fuse lighted under your official chair.

There is one word frequently used whose significance has never been properly understood and appreciated. That word is "association." It has no limit in confidential relations or time. It is difficult, after the lapse of so many years, after the crossing over to the other side of such a vast majority of your associates, after recalling their merits, their virtues, their good works, your love for them and their loyalty to you, to speak of the past without almost uncontrollable emotion. My policy and practice during all these years were those of confidence and intimacy with all my associates in every grade of the service. I think, when active in the operation of the Company, I had a wider personal acquaintance with the thousands who were connected with the corporation than anybody. This was because my habit of speaking at the anniversaries and celebrations of the different Orders in the railway service led to familiar acquaintance with locomotive engineers, firemen, conductors, brakemen and those in the shops, in the yards and on the track. I may say, always believing in the virtue of reciprocity, I have never in my long career had my confidence abused.

To have been in close and active participation with the railway development of the last half century is in itself a life of extraordinary education and opportunity. To have had in a large measure the confidence of those great constructive minds who were the pioneers in the creation of this network of rails which has developed our country and made it what it is, was a rare privilege.

The attorney and counsel in my early days saw much of the president. He was generally a part of the executive staff, always on the car in the tours of inspection, always present at the frequent meetings, so difficult, so controversial, with the executives of rival corporations and always present when difficult questions in any of the departments had reached the executive for decision. When I became President, on account of this training, the operating department, the freight and passenger departments were to me as if I had been trained in each and all. And yet one of the most interesting of my duties was to stand between the public and the Company when hostility to the railroads was most acute. Agitators fanned this feeling into a flame, and the press generally, and Chambers of Commerce and Boards of Trade were most unfriendly. Hostile legislation threatened both the efficiency and solvency of the railways. I recall as one of the most satisfactory of experiences the part I had in settling those troubles, removing antagonism and establishing harmonious relations between the people and the railroads. The most striking proof of this change from bitter enmity to cordial friendship was when the delegates from the State of New York to the National Republican Convention in 1888 unanimously presented me as their candidate for President of the United States. Those shrewd, able and wonderfully equipped men would never have advocated a candidate unless they firmly believed he would have, at the election, the support of the people.

It seems like the history of early times for me to stand before you and say that in my early days in the service Commodore Vanderbilt had the Hudson River and Harlem and afterwards, as you know, the New York Central and Lake Shore; Colonel Scott the Pennsylvania and John W. Garrett the Baltimore and Ohio. These men were giants in their day and of

extraordinary genius for affairs. As an attorney I saw Commodore Vanderbilt every day at his office, in his house, during the last ten years of his life. I had been prior to that time twice a Member of the Legislature and Secretary of State of New York. I had come in close contact with President Lincoln, General Grant, General Sherman, General Sheridan and all public men of that wonderful period of original and distinguished captains. It had made me a student, deeply interested in the mental qualities and characteristics which had made these men great. I came to the conclusion that the quality of greatness can neither be analyzed nor defined.

I have often found what would be a weakness in an ordinary man is the principal element of power in a great one. Commodore Vanderbilt was an enigma to his closest associates. How he arrived at conclusions they could not tell. They could only wonder that his conclusions were almost invariably correct and his decisions rendered almost immediately after the question was given. Some called it intuition, some luck. There was much of the former and very little of the latter. That the Commodore went from the steamboat to the steamship, in both of which he was a leader, then to the railroad, in which he became the leader, leaving the one and entering the other at the right time in the industrial development of the country, was neither luck nor intuition, but marvelous perception of conditions, accuracy of judgment and resistless quickness in following judgment by action. It would take all night to recall and differentiate those leaders in the other systems.

A few of our own people. Most of you can remember Tousey, our General Manager. He was a capital officer who, like most of those who had come up from the ranks, had no use for the products of the schools. When we needed a superintendent, he said to one of the candidates, "Are you a graduate of the Troy Polytechnic, of the Stevens or the Massachusetts Tech?" "No," said the candidate. "What is your career?" "I began as a telegraph operator, then assistant to the division superintendent, then division superintendent, then general superintendent." "That's enough," said Tousey, "you are appointed."

One of the original characters was Major Zenus Priest, who

was for fifty years, most of the time as division superintendent, with our Company. He always joined me in my repeated trips over the line. He was an excellent officer, kept his division in good condition, got along well with his men but always predicted a strike before I came over the road again. It was a time when the railway men were forming new labor organizations, and old Major Priest thought every new organization was a nucleus of a strike.

Another superintendent long with us was Burroughs, an original man who said very little, except to himself, with whom he was always talking. I remember going over the line with him on the pony engine, and I will say for those of my friends here who are not familiar with that machine that it is a cabin built over the boiler of a locomotive, with chairs on each side, so that you can sit in front and watch the track as the locomotive speeds along. Burroughs would sit on one side looking out. I, as President, on the other. Burroughs talking to himself would comment on the track, roadbed, grading, rails and say what he would do by way of compliment or punishment to the man in charge. On one trip, without changing voice, Burroughs said, "That switch is open,—in less than a minute we will be in hell." The locomotive jumped the switch and landed on the track all right, and the next comment was, "That switchman is discharged."

The most remarkable revolution in the last fifty years has been in the relations between government, national and state, and the railroads. As a new country we wanted railroads, and settlements, farms, villages and cities followed along the lines of their construction. Building them was a huge gamble for the promoters. Some paid largely, some after years of struggle yielded a small return, while many went bankrupt and through several reorganizations ruined the original and succeeding investors.

A railroad never goes out of business, its rails are not torn up. It becomes indispensable to the communities it has created or made prosperous. And so making no returns to those who have put their money into it as stockholders or loaned it their savings as bondholders and sometimes not even earning taxes, it continues to run under the Court and through a receiver.

But the time came in railway development when government regulation was indispensable. The success of the Massachusetts Railroad Commission, which was purely advisory, impressed the country. As an attorney, I opposed the movement at first, but soon became convinced that regulation was a necessity for the public, the shippers, railroad investment and operations.

William H. Vanderbilt was then President as well as the owner of a majority of the stock of the New York Central Railroad. He was a broad-minded man of great ability, but handicapped to a certain extent, as many an exceedingly capable son has been, by the fame of his father. After careful consideration he accepted that view and welcomed the Commission. The first idea of the Railroad Commissioners was that to secure equitable rates they must encourage cut-throat competition. They soon learned that this policy bankrupted weaker lines and also business in the territory which they served. These lines could not give their people a service which would enable them to compete with their more fortunate competitors on the stronger lines. The true principle of transportation was ultimately solved, that is, equal rates to all and reasonable rates which will provide for maintenance and improvements and a fair return to the investors. But the rapid evolution of railway control has produced unexpected results. It has given us in the Inter-State Commerce Commission the most powerful bureau in the country.

There are nearly two millions on the payrolls of the railroads, and with their families they number ten millions or one-tenth of the population of the country. There are nearly as many dependent largely on the railroads in the coal and iron mines, the steel rail mills and the manufacture of railway supplies. There are ten million depositors in the savings banks, and the largest investment of those banks is in railroad securities. So here are nearly two-thirds of the people directly or indirectly dependent upon the prosperity of the railroads, and the railroads entirely dependent for their prosperity and efficiency upon the Inter-State Commerce Commission. The situation is without a parallel. The responsibility is paralyzing. The Commission has far more power than the Supreme

Court of the United States. It more intimately affects the family and the home. It should have equal dignity in extended terms of offices and in salaries to attract the greatest ability and independence.

The following statistics are eloquent of the situation:

Of earnings of the railroads of the United States in 1913 amounting to	$3,118,929,318
there was paid to employees	1,439,000,000
for taxes	129,052,922
for materials and supplies	320,823,000
in dividends	217,000,000
in interest or indebtedness	407,000,000

Reduced to percentages they exhibit this remarkable result:

Percentage from gross earning paid to employees	44.00
Percentage paid for materials and supplies	23.10
Percentage paid for interest	13.04
Percentage paid for taxes	4.14
Percentage paid for dividends	4.09

Railway management is a profession requiring study, preparation, training, practical experience and high abilities. The government in the Inter-State Commerce Commission should be able by reason of the honor and permanence of the position to attract to this service the most tried, proved and expert talent and character there is among the people.

There is no vocation where there is so much camaraderie and good fellowship as among railroad men. We have a difficult task to perform, the most difficult of any profession. The whole public uses the instrumentalities which we control, manage and work. Therefore, we have to satisfy the public of the United States, and at the same time satisfy the investors. This requires an unusual degree of character, intelligence, experience and devotion to duty. It is a tribute to the two million men who are engaged in the railway service that so few drop out by the way, so few render themselves liable to the criminal courts or the adverse judgment of superior officers in the discharge of the difficult functions, which in every branch

they are called upon to perform. There is and always has been in our Central System an unusual degree of brotherhood.

When I entered service the Central System consisted of the Harlem railroad, running from New York to Chatham, one hundred and twenty-eight miles. To-day it has twenty thousand miles and is, if you take into consideration all that it is and does, probably the most important railway system in the world. It is a wonderful and grateful experience to have been so closely associated in the same company with the men, distinguished for their ability and achievements, who have come and gone in these last fifty years and to find myself in cordial intimacy and almost as one of the youngest among those who are still active.

Commodore Vanderbilt said to me one morning over forty years ago, not long before he died: "I would like, if I could be assured, that some Vanderbilt would be in the management of the New York Central road for many generations to come, but I do not hope that the Vanderbilt influence will extend beyond the sons of my son William H." If in the other world those who have passed the Great Divide are conscious of what is happening here, as I believe they are, then the Commodore must be pleased when he sees and knows that in the official ranks of the New York Central are two Vanderbilts of a still younger generation, William K., jr., and Harold, both efficient, both able, both promising, both with long lives of usefulness before them, and I am glad that we can welcome them among us here to-night.

My friends, four-score years seem wonderful in prospect. I remember when I thought that forty was old, when fifty ought to be time to retire, when sixty was past consideration. But when one has passed that great climacteric of eighty, then the past seems to have been a preparation for the future, and the future he looks forward to with hopefulness, optimism, thanks and profound appreciation of the greetings, the welcome, the hail and hope which you give. I thank you, gentlemen!

FREDERICK H. ECKER

THE HUMAN FACTOR IN THE BALANCE SHEET

Frederick H. Ecker is vice-president of the Metropolitan Life Insurance Company and President of the Chamber of Commerce of the State of New York. He was born in Phoenicia, New York in 1867, and has been with the Metropolitan Life Insurance Company since 1883. The following address was delivered before the convention of the New York State Bankers' Association at Montreal, Quebec, June 24, 1924.

It is a privilege to bring a cordial greeting to the members of this Convention and our Canadian friends from the Chamber of Commerce of the State of New York.

In these surroundings one could not but be reminded of the friendly relations existing between the United States and Canada for over one hundred years and view with satisfaction this long period of unbroken peace, our frontier consisting of an invisible line with no fort on the borderland. Meetings of business men from various countries and the transaction of business between men of different nations, are, perhaps, the best provision against future wars.

I assume you are here to exchange views, compare experiences and discuss problems of banking and that you are finding, year by year, a closer and closer relationship between banking and every form of commercial and business activity.

While originally the merchant was also the banker, for a long period of time the banker has been quite distinct from the merchant, and, not infrequently consulting the merchant for his judgment in shaping the policy of the banker. Latterly, however, conditions are so changing that the banker is becoming more and more of a business man himself and, indeed, a merchant, as that term is usually understood. The banker's commodity is money—money or credit, which is the same thing.

The same laws of supply and demand that affect the prices of merchandise, obtain in fixing the price of money, which is dealt in the same as any other commodity.

The up to date banker's judgment of business conditions determines his own course and, to an increasing extent, that of his customers. This suggests on the part of the banker, a large degree of versatility in his knowledge of a great variety of phases of business endeavor. The banker must give his customer an opinion. It is always one of judgment. It isn't, like the lawyer's, based upon the written law or the decisions of the courts. While the banker deals with his own commodity as a merchant, he also has much responsibility in advising with respect to transactions in commodities in which they deal.

Not infrequently, advice may run contrary to the banker's own interest. There are times when it may well appear to be the part of wisdom to increase stocks of merchandise and to advise the customer to borrow for the purpose, even though loanable funds are scarce and the banker is "put to it" to find ways of meeting promises on agreed upon lines of credit. At other times, such as at present, it may be that counsel should be given against borrowing, because the outlook appears to be unfavorable to the accumulation of stocks, even though money is easy and the banker would like to have his funds occupied. The successful merchant understands credits. If he is a poor credit man, he fails. So does the banker and the best banker is often the one who has had training as a merchant.

Unique Organization of New York Chamber

Our Chamber of Commerce of the State of New York, popularly known as the New York Chamber of Commerce, has many bankers in its membership. Some of its most notable activities have been guided by men engaged in banking. It is the oldest business organization in the United States, and of its kind, probably the oldest in the world. There have been Chambers of Commerce in some European cities for a longer period but they are in a measure a part of the Government of their respective countries and are not voluntary Associations

such as the modern Chamber of Commerce. In England, of course, there have been, for many years, certain guilds connected with industries, but these were always Associations composed of men in the same line of business and they did not conform with the modern idea of a commercial organization.

The New York Chamber still operates on a somewhat different line from most Chambers of Commerce even in the United States. The modern commercial organization is formed on the corporation plan, whereby the members delegate their powers to a small board of directors or executive committee which transacts business, presents resolutions and acts wholly in the name of the organization itself. The New York Chamber adheres to the old New England Town Meeting plan. Its officers and committees have no right to make public reports or give expressions of opinion on behalf of the Chamber unless the Chamber itself has first passed upon the question. Meetings are held monthly in the Great Hall of the Chamber, and, with the notices of meetings, there is sent, whenever possible, a copy of any report to be acted upon. Opportunity is given for discussion and the action finally taken may truly be said to represent the view of the entire membership.

In most commercial organizations to-day there is no limit as to membership, the idea usually being to secure as many members as possible, and firm or group memberships are in order. The New York Chamber limits its resident membership to two thousand, and individuals only are eligible. The membership of the New York Chamber not only embraces leading representatives in the commercial, financial and industrial life of New York, but in a large measure, of the whole country.

The Chamber occupies its own building, on Liberty Street, New York City, and its Great Hall or Meeting Room is one of the show places of America. There are, in the Chamber's collection, nearly 250 portraits and oil paintings of the officers, prominent members of the Chamber and other men identified with the growth of New York from the Colonial days down to the present time. Many of these paintings are extremely valuable.

The Chamber has long acted as host for distinguished visi-

tors and committees from other parts of the country and abroad, and in recent years has entertained in the Great Hall such men as the King of the Belgians, Cardinal Mercier, the Prince of Wales, Clemenceau, Balfour and many others.

The Chamber has been perhaps the foremost body in the United States in advocating the principle and molding the practice of commercial arbitration. At the first meeting of the Chamber, in 1768, a committee was formed to promote the settlement of commercial disputes by arbitration. To-day the Chamber has a very effective system for that work. Many cases come before it and its facilities are not restricted to members of the Chamber—in fact, on more than one occasion, foreign government have been a party to an arbitration.

The Chamber also conducts a series of commercial examinations. The successful applicants receive credentials from the Chamber and the Board of Regents in the State of New York jointly. The holders of these credentials receive special consideration in their applications for positions.

Chamber Has Rich Historical Background

The Chamber was organized in the Long Room of Fraunces's Tavern on April 5, 1768. The Tavern still stands at the corner of Broad and Pearl Streets, New York City, and it was there, in the Long Room, that Washington took leave of his officers. The Chamber still possesses the minutes of its first meeting, written by its Secretary, Anthony Van Dam, and there is a complete record of the minutes of all meetings from that time on. There are a number of items of routine interest in these early records. It was the practice in those days to fine a member, for non-attendance, one Spanish dollar, unless, at the next meeting, he gave some reasonable excuse for his absence. In the minutes of the early meetings will be found lists of those attending, those absent and the reasons given for absence. There are many entries to the effect that the person absent was "in the gout." Other reasons for absence were that a member was "absent in the Jerseys, in Brooklyn, or in Bloomingdale Village," the latter being at about the site of Broad-

way and 65th Street now. It is fair to assume that most of the members of the Chamber to-day live at a greater distance from the Chamber's building than the places just mentioned, but it is obvious that in those days the distances given were too far to be readily covered by the pedestrian or by the methods of conveyance then in use.

Another rather interesting fact, in view of recent legislation in the United States, is that the meetings were held at night and the Treasurer was required to provide, for the members present, tobacco, pipes, bread, cheese and beer. The Chamber still furnishes a buffet luncheon at its monthly meetings for all members who attend, but the last-named item is now conspicuous by its absence.

A rather interesting commentary upon the customs of those early days may be found in the following copy of the bill for a dinner given in Fraunces's Tavern, above mentioned, in 1784:

To	120 dinners at	48/ 0/0
"	135 Bottles Madira	54/ 0/0
"	36 ditto Port	10/16/0
"	60 ditto English beer	9/ 0/0
"	30 bouls Punch	9/ 0/0
"	8 dinner for Musick	1/12/0
"	10 ditto for Sarvis	2/ 0/0
"	60 Wine Glasses Broken	4/10/0
"	8 Cutt decanters broken	3/ 0/0
"	Coffee for 8 Gentlemen	1/12/0

Of course, the significance of the above bill is in the number of gentlemen left who were able to partake of coffee.

However, I must abandon these interesting excursions into Colonial history and come to the subject to which I have been asked particularly to address myself—

The Human Factor in the Balance Sheet

More and more, in the banking business as in industry, the attention of forward-looking Executives is turning to that "concealed asset" which is not in evidence on any bank's balance

sheet, but is, nevertheless, a factor in every item on the statement. It's the Human Factor—the personnel and morale of the bank's employees; the degree of their interest in their work and their loyalty to the bank; their representation of the bank to the public—the facts that walk behind the figures and help make them what they are. This factor varies in proportion to the success of the bank's management in enlisting the wholehearted coöperation of the bank's employees, and, as it varies, it affects, directly or indirectly, every figure on the bank's statement.

Fully aware of the definite dollar and cents value of *positive* rather than even neutral coöperation from employees, many banks have adopted, in the interest of their employees, various ingenious and commendable plans that go far beyond the pay check alone. Back at the beginning of the current calendar year, the newspapers printed almost daily announcements of liberal bonus payments to employees by various prominent banks. Profit-sharing plans reward efficient employees in many banks. Old Age Pension Plans for the benefit of faithful bank employees are quite common. Liberal Savings Plans encourage employees' thrift in several banking institutions. A large number of banks are helping their employees build estates through the medium of *Group Life Insurance,* and it is that subject that I have been asked to discuss briefly from what might be termed the vantage point of my dual capacity as banker and Life Insurance executive.

Recently there came to me a study made January 1, 1924, of the average salaries paid by nine representative New York City banks to the various classes of employees that constitute the "rank and file." Salaries of officers and officials were, of course, excluded. It is needless to say that these figures bear out the fact, quite commonly understood, that such salaries are lower than those paid in many mechanical and building trades.

These facts point to a condition which leads the thoughtful bank executive to give earnest consideration to any sound, scientific program that both helps the bank employee better his economic status and tends to increase his value to the Bank.

That Group Life Insurance apparently serves such a purpose, in the judgment of the executives of many important banks, is evidenced by the long and steadily growing list of banks whose employees are protected by this form of insurance coverage. The records of one Life Insurance Company alone show 90 banks and trust companies which carry Group Life Insurance in the total amount of $28,462,321, protecting a total of 14,581 bank employees for insurance averaging $1,952 per life. At the end of 1923, this one Insurance Company carried on its books slightly more than one-fourth of all the Group Life Insurance in force on all classes of risks in the United States and Canada. (It may interest you to know that more than 6,000 employers are now carrying Group Life Insurance substantially in excess, in the aggregate, of two and one-half billions of dollars.) If, for the other Life Insurance Companies doing a Group Life business, the ratio of Group Life protection on bank employees to total Group Life Insurance in force is approximately the same as for the one Insurance Company referred to, we would be warranted in estimating that almost 58,000 bank employees in the United States and Canada are protected by Group Life Insurance totaling approximately $114,000,000. In other words, it is estimated that approximately one out of every four bank employees in the United States is now enjoying the sense of security that comes from Group Life Insurance protection, in an average amount approximating his annual salary.

What Group Life Insurance Is

A brief description of the Group Life Insurance Plan may be of interest, particularly to those of you whose employees are still numbered among the three-quarters, unprotected by this form of coverage. A Group Life Insurance Policy is issued to an employer for the benefit of his employees at low cost wholesale rates, and *without* physical examination. Such rates are warranted on the assumption that men who are actively at work represent, as a group, men who must be in good physical condition, the low rate being further predicated on the reduction in expense of handling business in a wholesale way. Em-

ployees actively working are insured, regardless of age or physical condition. The amounts of insurance for the various employees are ascertained automatically on the basis of a predetermined schedule of benefits agreed upon between the employer and the Insurance Company. The minimum amount of Group Insurance usually issued on an individual life is $500, and the maximum is normally $5,000, subject, however, to increase when large groups of employees are protected. With banks, a popular plan has been a schedule of benefits insuring each employee for an amount approximately equalling the annual salary, which, in effect, guarantees to the worker's family, a continuance of his pay check for one year after death. A simple automatic master policy or contract is issued to the employer, and the Insurance Company furnishes for delivery to each insured employee, an attractive individual certificate reciting his privileges and benefits under the master contract, and containing the name of the beneficiary, nominated by the employee. New employees become automatically eligible for the group insurance protection without physical examination after a predetermined waiting period, which is usually either three or six months. As to employees leaving the service, the Group Life Insurance terminates automatically upon termination of employment, but the employee has the right (within 30 days after termination of employment) to convert his Group Insurance certificate into an individual policy of the Insurance Company of the same amount, at the prevailing commercial rate for his then attained age, and without medical examination.

A particularly popular provision of the Group Life contract is the clause providing that if an employee becomes totally and permanently disabled before reaching age sixty, the amount of insurance on his life shall become payable to him during his lifetime, in monthly installments. For example, a $1,000 policy is paid in case of such disability in twenty monthly installments of $51.04 each. If the disabled employee dies before the full face value of the insurance is paid in such installments, then the unpaid balance becomes payable in one lump sum to his beneficiary. It is noteworthy that for every ten death claims paid under Group Life Insurance, one claim is allowed on account of total and permanent disability.

Group Life Insurance as thus described, is restricted by the New York State Insurance Laws to employers having fifty or more employees whose lives are to be insured. To banks with fewer than fifty employees, however, the Insurance Companies offer a modified Employees' Insurance Program called "Wholesale Insurance."

An especially attractive feature of Group Life Insurance is its low wholesale cost. For the ordinary banking institution, the premium averages less than $12 per year per $1,000 of insurance, or only a few cents per day per insured employee under a reasonably substantial schedule of benefits. During the early history of Group Life Insurance, and up until about two years ago, the usual practice was for the employer to pay the entire premium. Within the past two years, however, the trend has been decidedly toward what is called Coöperative Group Insurance, with employer and employee sharing the cost. Probably more than 75 per cent. of the Group Life Insurance now being written is on this coöperative basis.

Coöperative Method Payment

The essence of this coöperative plan is that the employer, by arrangement with the Life Insurance Company, offers his employees an opportunity to secure the insurance at a fixed cost to such employees, which cost is often $7.20 per year per $1,000 of insurance, the employer paying the balance of the net cost for each employee covered. Insurance on this plan becomes effective only when and if 75 per cent. of the eligible employees signify their desire to secure the protection, through authorizing automatic payroll deductions to cover their share of the premium. The coöperative program gets away entirely from any suggestion of paternalism. It helps the employee help himself. The employer is assured in advance of the appreciation of his employees, because, as indicated above, the insurance can legally become effective only when 75 per cent. of the employees signify their desire to obtain the benefits of his group insurance program by contributing substantially toward its cost. If the mortality experience of the group is favorable,

the employer's share of the premium is subject, with the mutual Insurance Companies, to reduction by annual dividends, if and as earned.

One of the most interesting Employees' Coöperative Insurance Programs in force in America is that which the F. W. Woolworth Company offers to its executives, officials and the local managers of its stores, which number more than fourteen hundred. Through its Coöperative Insurance Program, the Woolworth Company has helped to secure, at a cost of only approximately $40.00 per year to each employee, Life Insurance protection in the amount of $10,000 together with total and permanent disability benefits of $345 per month, payable for thirty months, in event of disability before age sixty. The balance of the net cost to the employer has been essentially moderate, particularly when considered in the light of the store managers' appreciation of these "$10,000 estates."

In conjunction with Group Insurance Plans, some Insurance Companies offer to employers and employees, without additional cost beyond the stated premium, various Service Programs. The Group Service Program of one Company may be illustrated briefly under the four following headings:

1. A Free Visiting Nursing Service by visiting graduated nurses to sick employees. The nurse coöperates with the attending physician, renders the necessary bedside care while present, trains the members of the household in the proper method of caring for the patient between calls, and reports systematically to the employer on the patient's progress.

2. A Health Literature Service, the object of which is prevention and cure of disease in the homes of employees, and an education in the practical rules of health.

3. A Sales Service, of which the primary object is to bring employees to a thorough understanding and appreciation of the benefits of Group Insurance. This appreciation is brought about through posters, printed announcements of the plan, pay envelope inserts, write-ups of death claims and human interest stories for house organs.

4. A Business and Industrial Service, through which is given suggestions and information on various problems confronting

policyholders. Special emphasis is placed on the human element. This service is carried on by a corps of specialists who have up to the minute data and material on Business and Industrial Research, Management, Industrial Relations, Production and General Engineering Problems, including Safety.

Many of you have probably seen and heard extravagant statements regarding the advantages of Group Insurance. It will not do all that has been claimed for it. It is not, of course, a panacea for all organization ills. It is a sound economic step in the right direction. It has met successfully the acid test of experience, for the general consensus of opinion of those who have tried it is that Group Insurance does tie up a man's work interest to his home interest; that it does make for a more loyal and more coöperative body of employees; that it does tend to reduce labor turnover; that it does improve the economic status of the employee; that it does bring more adequate protection, not only to the homes of that large majority of workers who are under-insured, but also to that every seventh man who, because of age or physical impairment, is unable to secure other Life Insurance protection at any cost. Many a busy executive, whose interest in his employees impelled him to consider Group Insurance, looks back to the date of its adoption in his business with a satisfaction born of a consciousness of personal service rendered alike to his institution and to his co-workers. For those of us, whether bankers or merchants, manufacturers or railroad men, who seek to strengthen our business situation, it is confidently asserted that Group Life Insurance, as surely as any device which has yet been developed, will serve to enhance the value, on the asset side, of the Human Factor in the Balance Sheet.

JOHN EMMETT EDGERTON

CANDLES OF UNDERSTANDING

John E. Edgerton, head of the Lebanon Woolen Mills, Lebanon, Tennessee, has been president of the Woolen Mills since 1912. He is president of the National Association of Manufacturers, and the following is the annual president's address given at the Thirtieth Annual Convention in St. Louis, October, 1925.

FELLOW-MANUFACTURERS, LADIES AND GENTLEMEN: Since last we met for the high purposes of this gathering, we have traveled once around the sun and half way around again, having thus completed on the enforced tour of inspection a distance of approximately eight hundred seventy-nine million one hundred and twenty thousand miles without a change of planetary tires, and with the same air that we left on. Within the same period of eighteen months, we have also made five hundred and fifty complete revolutions with the earth on its axis, thereby adding thirteen million seven hundred fifty thousand miles of travel to our already stupendous total. In addition to these involuntary but highly satisfactory movements through space, some of us have expanded our records of travel by side trips to Europe, Asia, Africa, Florida, Canada, Cuba, Bimini, and other places where the exercise of that mysterious and indeterminable thing known as personal liberty is limited only by individual capacities of consumption.

Notwithstanding this staggering total of nearly one billion miles of travel, with its prodigious wealth of opportunity for study and observation, together with a year and a half more of experience in an age of rapidly unfolding marvels of every sort; and notwithstanding the multiplied, concentrated energies of competing armies of expert problem solvers in the social and moral realms, in government, and in industry, solutions have not yet been found to all the problems which justify

and necessitate associations of kindred minds in united efforts to reach common ends. This convention, therefore, is an undisplaced and undiminished necessity. Indeed, it is the cumulative product of thirty years of demonstrated usefulness, and its influence will not be measured by mere attendance or columns of publicity. Let me remind you again that it is the only annual occasion on which manufacturers of all trades and sections may or do come together to consider in fraternal detachment from other organic groups those questions which are of primary importance to all industry. Its value to us, to industry, and to our country will be determined not only by our ability to comprehend its purposes, but by the courage, intelligence, and perseverance with which we endeavor to consummate them.

Now, if there be those who live in the gilded palaces of self-delusion and who have anesthetized their senses of responsibility with the soporific thought that all of our problems are solved, and that we have nothing left to do except, with the avid anticipation of greed, to watch Mr. Coolidge shake down from an ever-green tree of prosperity fruit for us to eat, let them walk with me through a forest of facts which none but the blind can fail to see. Within the time that I may appropriately, if not usefully, consume, I can only suggest what I would have you test out and evaluate in the crucibles of your own experience and observation.

An Era of Craving for Unearned Ease

Never during all of the acts of the drama of human life has there been manifest a craving for material wealth, social position, and political advantage so nearly universal and so completely dominating as at this hour; nor such a sweeping revolt against the obligation to actually earn any of them through the merit of perspiratory labor, intelligent economy, and sustained application of the energies of mind and soul. Real work of the sort which not only creates but sustains prosperity and happiness has become the nation's pastime, and play its business; and the minds of what appears to be a threat-

ening majority seem to be engaged with the task of eliminating labor and sacrifice altogether as the requirements of happy existence by trying to find substitutes of leisure productive of profit.

How and of what to build more highways to accommodate the swelling volume of travel and never interrupt the flights from duty is a perplexing question which begs constantly for an answer. And when the answer is finally and completely given, then we will be confronted with the problem of discovering, drafting, and paying enough traffic cops and police to prevent precipitate national self-destruction. Another problem, which is of apparent paradoxical character, is to discover new and more effective methods for reducing crime simultaneously with the increase of leisure, idleness, and the pursuits of unearned ease. Still another subject of growing concern in some quarters is how to effectuate such amendments to our game laws as will more adequately protect subdued husbands against the explosive interpretations of the nineteenth amendment to our federal constitution.

But very seriously, of all the present dangers which, like an angry cloud, threaten the security of our national life, the very greatest, in my opinion, is the perceptibly growing dissolution of the American home under the disintegrating influences of our pleasure-mad, money-mad, modern conditions. Surely, there are more mere houses in America now than ever before, and magic-like the number is ever increasing. But just as surely, there are fewer homes like those of which Byron, Burns, and Payne sang, and in which are taught and practiced the simple virtues of obedience, reverence, and modesty. And of such virtues must be builded the manhood and womanhood of any nation that would endure.

Let this thought burn forever on the altars of your memory: However sound its economic status may seem to be, however stable its currency, or whatever may be the condition of its national treasury, no government has ever been or ever will be stronger than its social structure and the moral fabric of its constituency; and upon its homes must rest this structure, and in them must be woven this fabric.

Then, let those who still have the impulse to flee from the

disturbing presence of unpleasant truth pause again to ponder other anomalies discernible in the social, economic, and political fields. Witness the energetic endeavors through organized force to make the quantity and price of the products of human effort go up at the same time and remain at fixed points determined by legislative statute. Hear the chorused voice of the multitude screaming for an increase of compensation in direct proportion to a reduction in hours of labor. Listen to the strange philosophies of the living wage, the check-off system, the minimum wage, government controlled children, the closed union shop, and the socialistic redistributions of wealth. Such philosophies are no longer confined to the columns of foreign papers and soap boxes on street corners. They have been respectabilized by repetition until they have been caught up by the intelligensia and are now thundered unblushingly from many of our pulpits, platforms, and rostra, and taught in our schools.

It is known that some of these evangelists of de-Americanization are Russia-inspired or Russia-fed, while others, like the so-called American Civil Liberties Union, are maintained in large part by the contributions of wealthy citizens of this country, who prefer its money and comforts to those of the land they would imitate, but who have evidently become more enamoured of the ideals of Lenine than of those of Washington, Jefferson, Madison, Hamilton, and Lincoln.

Evading Our Responsibilities

There are many well-intentioned Americans, and among them manufacturers, who obviously think that there is little or nothing for us to worry about or work at except those things that lie within the circumference of immediate self-interest.

Some of our larger corporations have developed through success such a sense of self-sufficiency that they will not deign to acknowledge the obligations of coöperation in the common tasks, which must be performed by somebody if America is to be preserved against the formidable powers and influences that threaten within and without. And with various specious

pleas known to the craft of excuse makers, many of our smaller corporations are also perfectly willing to "let George do it," and then anathematize him when he doesn't do it to suit them. These brethren of the Order of Alibi, their self-deceived cousins in the Society of the Uninformed, and other kindred in self-made masks of arrogant optimism, either do not know or have forgotten that the forces of destruction, both conscious and unconscious, rational and irrational, are ever immune to the discouragements of defeat. They know not vacation or holiday; and they thrive best upon the very liberties which they would destroy.

Let us remember that there is not a conservative living who is not a potential radical, and it is always easier to travel downward than upward. The conditions of an individual's life more often determines his mental attitudes than his thinking determines the conditions under which he thinks and acts. Majorities of millions have been known to shrink within brief spaces of time into minorities of thousands. Mr. J. Ramsey MacDonald, until recently the Prime Minister of Great Britain, contributed much to the wealth of world thought when he said some time ago:

"The real danger in the world at the present moment is that it is blind to gathering storms; that it deals with them only when they are entering upon their last phases; and that then it is either so stiff that it challenges right and ranges itself among the powers that doom themselves to destruction by their own folly; or that, when sobered at the last moment, it cannot do the right thing without appearing to surrender—not to justice—but to force. That is the history of all revolutions."

It would be well for us to deposit in the treasure houses of our memory this gem of truth from the lips o one who came up by his own strength from an humble position in the ranks to the highest station possible to English merit; and who, by virtue of the uncommon opportunities afforded by his ascension, accumulated a knowledge that challenges world recognition.

If industry constituted an independent unit in our national

life, and if economic factors were all that were involved in the consideration of its welfare, I confess that at the present time there seems to be little on the surface of things to worry much about. On the whole, business is good and getting better. There is almost a minimum of involuntary unemployment. Wages, both nominal and real, are still the highest paid in the entire world. There was never so relatively little conflict between employer and employee, and their relations were, perhaps, never before so cordial and free from misunderstanding. The strike in the coal industry is not to be considered other than as the operation of a well entrenched habit, the underlying cause of which and the chief issue involved being the infamous check-off system.

The vaults of our banking institutions are literally teeming with restless, discontented money looking timidly but eagerly for unhypothecated, panic-proof, deflation-proof securities in the ratio of two to one, or for fee-ridden loans on the relatively small unmortgaged portion of the nation's soil, or for mammoth speculations in gigantic combinations offering opportunities for gain stripped of all visible danger to the agencies of pillage. The very strange but consoling feature of a situation like this is the copius showers of unprecedented philanthropy, which run off into compensating moral benefits to the citizenry. But however stimulating this is to the imagination, it is not an entirely wholesome condition when good men and causes find it easier to obtain large gifts than small loans.

Whirlpools of Activity in All Lines

Crop reports and statistical information of other kinds touching prices and prospects indicate very gratifying improvement in the agricultural situation, and a much happier atmosphere in that field where economic law has been encountering some of its most stubborn resistance. Following this release of pressure upon the economic mind, there should and, perhaps, will be at least a temporary recession of the socialistic tide of proposals from that source. Our transportation facilities appear to be taxed to the limits of their capacity; and

in that sector of our economic life, there is nothing to invite immediate alarm except the always present possibility of an offensive political invasion.

In the kingdom of commerce, there is an increasing activity among the draymen, clerks, credit managers, and bookkeepers, particularly the latter. The banks have the money, and the people the credit. Since by the involuntary kindness of domestic manufacturers the merchants no longer require extended, large credits, and can ordinarily see the outlets for their wares before they purchase them; and since, if the markets decline while the goods are in transit, they may be easily returned or declined for a cause removable only by adjustments of price, there is not much occasion for gloom in that territory.

Merchants are carrying the people, manufacturers are carrying the merchants, and the banks are dragging the manufacturers by the hair of their heads. In the professional and trade regions, the lawyers have their hands full holding down practically all of the public offices, putting criminals in prison and taking or keeping them out, making and breaking wills, securing but scarcely ever preventing divorces, drawing mortgages, bonds, notes and winding up the estates of men, chiefly manufacturers dead from hard work or the lack of nourishment.

The unprecedented public demand for the latest crime news and saline scandals in the upper circles, for happenings in the worlds of sport and amusement, and for displays of bargains in stock reports, is keeping the newspapers busy printing extra editions. The doctors and dentists are fattening upon the results of popular dissipations and Epicurean intemperances, thus creating big business for the undertakers, tombstone builders, and epitaph writers. The barbers, cigaret makers, pants cutters, and flask designers are busy equalizing rights between the sexes, authorized by an amendment to correct an oversight of our forefathers and as many mothers. And so on around the economic rim of society there are the evidences of a nervous energy.

Now, if it were as true as many seem to think that bank and trade balances and other exterior symptoms reflect fully the strength of a nation for all of the battles of an unrevealed fu-

ture, then, indeed, we might with safety and without anxiety proceed care-free on our journey through the realms of the unknown. But, as a matter of fact proclaimed from Sinai and projected by history upon the informed intelligence of man, the strength of a nation and its most dependable security against the minions of unhappiness lie deep beneath the surface semblances of its economic life and in the very heart of its consciousness of obligation to and capacity for compliance with the laws of God and organized society.

Equal Opportunities for Talents

By these reflections I do not mean to insinuate into your thought that business can or should be conducted on the basis of sentiment, or that economic law can or should be discarded every time its exactions conflict with the heart impulses of man. Such things cannot be in a competitive economic system; and ours is and will be a competitive system until the Great Ruler of the universe levels mankind either by raising it to the sublime degree of sainthood, or by some other divine decree divinely enforced destroys the inequalities of their mental and physical endowments and the differences in their earning capacities. These differences were recognized in the Parable of the Talents when three men were variously capitalized according to their several abilities.

They did have equality of opportunity for the employment of their talents; and that is the fundamental requirement of any sound system and just government. It is to be noted that when these men reported the results of their labors, the two that were entrusted with five and two talents, respectively, showed that they had made profits of one hundred per cent each on their invested capital, while the one-cylinder fellow with the one talent complained that he didn't have enough to do anything with and had hidden his one talent in a napkin. In other words, he "struck" because he didn't have as much as the other fellows, also mayhap, because he felt that the returns from his efforts would not enable him to support his family in the style to which they were accustomed. And while the records don't say,

he undoubtedly had a large family. I have often wondered if this original striker were not probably the real founder of our modern labor unions. There is certainly a suggestion of kinship in their apparent conceptions of economic propriety and in their methods of enforcing them.

There is nothing fundamentally wrong with our system. It is the best so far that has been evolved from the wisdom of all the ages. Whatever the faults that inhabit it, they are inherent in and indigenous to the morals who operate it. It is, therefore, not the system which needs changing, but those people concerned with its operations who are dishonest, or otherwise incompetent. If all people were as perfect as God wants and expects them to become, any form of government and any system of operating its economic and commercial machinery would give universal satisfaction.

So, if those brethren of our churches who are so busy studying out ways to change the social order and bring peace to the earth would change their own systems of reformation by ceasing their efforts to force upon industry their interpretations of economic law and correct economic practice, about which they know and can know so little, and by returning to the preaching of the Gospel of Jesus Christ and teaching His principles to men, they would, in my opinion, more quickly lay foundations of love, from which brotherhood and peace will naturally rise, and upon which only can the structures of man rest in eternal security. Let them teach man his obligations, for man, in whatsoever state he is, can be depended upon to know and ultimately obtain his rights. Let them kindle the flames of love in human hearts, and the possessors of those hearts will unerringly and invariably find appropriate and adequate ways of expressing that love helpfully. For love, after all, is a sort of righteous selfishness which feeds only upon pure thoughts and good deeds, and grows only as it feeds.

The evidence accumulates that the problems productive of the most serious discords in industry are those which are superimposed by forces beyond its borders. Agents of organized distrust, vocational, social and moral reformers, and political quack doctors come a-visiting frequently and always bring Pandora boxes filled with choice diseases wrapped in beautiful

packages and labeled "cures." They often bring with them also beautiful, tender-voiced women, who can weep with or without cause. As a rule, they say little or nothing to those whom they come to serve about their obligations to those at the hand of whose enterprise they feed. They don't tell them that corporations are only bodies of hundreds, thousands, or even millions of individuals consisting in many instances of poor, hard-working men, widows, and orphans, who have combined their earnings under a carefully selected management to do for themselves and others what unassembled and unorganized capital cannot do. They speak to them chiefly about their grievances, and how to redress them, their rights, and how to obtain them. They represent the corporation, and try to stamp it upon the public mind, as an embodied spirit of greed wearing a mask and having the claws of a wolf. That indiscriminate, popular conception of a corporation has been responsible for more fool legislation than the most prolific statute breeder ever dreamed of.

Industry Is Purging Itself

But surely, industry has had its problems within itself, and it has some yet. It has had, and no doubt, now has some men in responsible executive positions who abuse the authority with which they are unworthily clothed. I have seen, known, and known of, some manufacturers and other employers of labor whose attitudes towards their employees and whose practices in dealing with them gave proof of a greed known only to swine.

There are manufacturing plants and business establishments in America to-day in which justice has been ravished, love slain, and selfishness enthroned as king. For them I have no apology. They are a disgrace to industry and the business world. They are the kind which have always constituted the most seductive invitations and the most appealing temptations to force; and, as a rule, the first to capitulate to its demands. Men operating such plants have always been, I fully believe, a minority in industry, and for several years a rapidly shrinking minority. Nevertheless, there are enough of them yet to embarrass and

handicap those of their trade fraternity who believe in justice at any price and in the doctrines that men may compromise their opinions and interpretations with honor, but never their moral principles; that there is no natural conflict between economic and moral law, and that any employer or other person who essays to violate or amend either of these bodies of fixed law in obedience to the suggestions of expediency, or for other cause, is in contempt of justice and is disloyal to his own business, his employees, and all others concerned with his success.

But I insist that industry must take and hold the leadership in its own purging wherever necessary, and that it can and will do it more quickly and completely than it can or ever will be done by unfamiliar hands. When a task of this sort is undertaken by social crusaders, political reformers, and salaried representatives of organized force who profit from discord, it is inevitably bungled. They carry legislative shotguns always as their principal weapons of offense. Sometimes they close both eyes and shoot indiscriminately into the multitude in which they suspect their particular game to be. And sometimes they shoot at the largest moving object in the field where they are hunting, assuming, of course, that it could not be so large without being criminal in all of its instincts. But it happens that on practically every occasion when they shoot, they miss entirely the particular game that they are after, and bring down a host of innocent by-standers.

Tasks That Confront Industry

It is manifest that the chief task of the more broad-visioned and responsible elements in industry is to lift, through the process of virtuous example and wise precept, the quarantine against sober and unselfish reasoning from the mind of at least that part of the public which has been confused by pernicious meddling. There is enough of intelligence and honesty among the unorganized majority and the organized minority of wage-earners in America, and among their employers, to settle all questions that arise in their respective fields of coöperative effort, and without the presumptuous aid of designing inter-

lopers from whatever camp of exploitation. But we should and will welcome the informed and unsubsidized assistance of any person or group who can contribute it helpfully and who offers it out of a sincere interest in even justice and in the preservation and advancement of American industry in conformity with American ideals, conceptions, and principles.

If on any occasion and in any particular place where the conditions warrant it, the instrument of collective bargaining is voluntarily and mutually thought to be necessary or desirable, the parties directly concerned with the issues involved may employ it with perfect propriety. So far as I know, the actual principle of such bargaining is not objectionable to any appreciable portion of the employing element. It is only when it is fashioned into a sword and used by mercenary troops brought in from outside the immediate field of controversy to subjugate the employer that it is commonly resisted by him as the instrument of unjust force. Yet, the falsehood is continually proclaimed, or insinuated so as to create the common impression outside of industry, that employers generally refuse to recognize the right of their employees to bargain collectively. These employers who insist upon dealing with their employees individually do so, as a rule, only because others than their employees, operating through their organized subserviency, are trying by veiled force to dictate terms and conditions of employment where they can not or will not understand all of the facts and circumstances.

Candles of Understanding

If Esdras of the Apocrypha was right, there are certain candles of understanding to be lighted in the hearts of men, which will not be fanned out by the winds of heated controversy. One of these is, that in every life, in every business, and in every unit of government, there has never been and can not be, in the last analysis, but one control. Strictly speaking, there is no such thing as joint control of anything. They may be and are joint operations of many things. But out of joint operations, differences in opinion and interpretation, or even in prin-

ciple, often arise, which are not and, perhaps, can not be subdued or dissipated by friendly argument or other means of obtaining mutual understanding.

Under such circumstances, final decisions must be made, carrying with them exclusive responsibility for their consequences. Surely, those decisions may be made by one person or a group of persons, but in any and every event, they proceed from one mind. Thinking now only of business establishments, the owner or owners are going to control those establishments, or they will be controlled by their employees or some outside force. Should not that ultimate control be in the presumably trained hands of that person or body of persons who holds the deed to the property, who acquired possession of it in lawful ways, and who is primarily responsible for its successful operation?

Another of these candles is, that all men are equally endowed by their Creator with free wills and with the abstract right and power of choice. These rights are, of course, accompanied in every instance by reciprocal obligations, the most fundamental of which is to always exercise those rights in a manner to lift the individual possessor of them through all of the stages of human development into the highest estate after death. With full responsibility for all of the consequences of their choosing men may choose the god they will worship, they may choose their governments, their communities, and their wives. Certainly, they will not always obtain what they choose, but that doesn't affect their right of choice. They may choose their religious and political affiliations, their social companions, and their habits of life.

Those seeking employment of any sort may choose from the availabilities their employers. Then, who can rationally justify a denial of the right to the employer to choose his associates in business? He accepts responsibility for their compensation, and for the consequences of their possible inefficiency. To my thinking, it is an arrogant presumption irreconcilable with the demands of reason or justice for any man or men to attempt to dictate to the owners or responsible operators of any business whom they may or may not employ or whom they must or must not discharge.

Attunefully with the resonant words of the immortal patriot, Henry, when England was trying to force a closed political shop upon America, I know not what others may think or do, but as for me, give me the liberty to run my own business, or give me the death which I will deserve and get if I don't run it well. And my fervent prayer is that so long as I have that liberty, I may regard and exercise it as a sacred trust conferred by my Creator and confirmed by the wisest instrument of government "ever struck off by the mind of man."

The third candle of understanding which I would have lighted, is the essential difference between the requirements of economic and moral law. In the analysis of this difference, it is necessary to note that every relationship in life has attached to it a distinct body of obligations. In the aggregate, a man's obligations to his wife are unlike those attending any other relationship he has. In his relationship to his church, to his political party, to his community, to his immediate neighbors, and to his particular benefactors, his obligations in each instance are separate and distinct. In some cases, he has more than one relationship to the same person or people, but in each such case, the obligations are distinct.

An employer, I think, has a double relationship to his employees, one of them being purely economic, and the other purely moral. The obligations attending his economic relationship, that of employer to employee, are to pay them for their work just wages, as determined jointly by their individual efficiencies, their particular worth to the particular business, and the ability of the employer to pay; to keep the conditions of employment as wholesome morally, mentally, and physically as his means to do so will permit; and to give all equal opportunities for the development of their natural powers and for realizing the largest economic returns from their efforts.

When an employer does these things, he is discharging fully his economic obligations to his employees. With them he is subject to the inevitable operations of the unrepealed and unrepealable law of demand and supply. Sometimes one is the victim and the other the beneficiary of the same operation, and conversely. Nevertheless, that law can not be rejected, ignored, or superseded; and all men are subject to both its

exactions and benefits. I am sure it often happens with every employer that he can not with justice to the perpetuity of his business pay his employees what he would like to pay them, or what their various necessities require, or what, indeed, their individual merits entitle them to.

Under such circumstances, his other immutable and undeniable relationship to them, that of man to man, friend to friend, brother to brother, furnishes the obligations, which, if performed, always may and sometimes do relieve the situation. This is the relationship of human interest, of brotherly love; and acting within it, one man can do for another what he can not or dare not do in his economic relationship. I myself have sometimes sternly denied to an employee a small raise in wages which his peculiar and unusual necessities induced him to petition for; and then called him into the quietness of friendly intercourse, and on an entirely different plane, gave to him out of my own substance cheerfully and generously that which love, not force, not hope of gain, compelled. So, employers can, may, and far more frequently than is known or thought, do give expression to their human interest in and love for their employees. And they don't do it in the spirit of that cold, calculating charity which is sometimes charged against them. Whatever the argument to the contrary, they are in most instances the very best friends their employees have, as evidenced by the larger sacrifices which they make for them.

The Work and Mission of the Association

As I interpret its mission, these are some of the more important candles of understanding which the National Association of Manufacturers is trying to light in the darkened places. Then, the City of Washington, being forever subject to recurring mental eclipses, we have to keep an arc light burning there, by which benighted congressmen may see their way to duty unobscured by misinformation. So, let the thought perish in the willing minds which harbor it that this association has as its dominating purpose to crush or oppose organized labor. It requires no repeating that we are not in sympathy with some

of its teachings and most of its methods, which, we believe, are not conducive to the ends they claim to seek. And there are other organizations composed of even more intellectual elements, and whose hands have never been soiled by real work, with which we find ourselves even more often and in larger disagreement.

But our main business is not to oppose what somebody else proposes; but to strive in legitimate and effectual ways to remove causes of objectionable proposals. It is to cleanse industry of those men and conditions which are obstructive to its development and progress. It is to teach the harmonies of brotherhood to the industrial chorus, and to eradicate the discords by the enforcement of economically and morally sound practices. It is to create more and larger opportunities for the toiling masses, that they may never go hungry or cold, but that they may continue to enjoy the highest wage and living standards in all the world. It is to make righteous and ceaseless war upon hands and tongues unfriendly to our American constitution and to the rights, liberties, and immunities which it guarantees. It is to break down sectionalism in all of its ugly forms, and to erect Americanism upon its ruins. It is to teach manufacturers through diffused information and organized drills the duties and responsibilities of enlightened leadership, not only in their plants, but in their communities, not only economically, but morally and politically.

It is to promote through organized effort ethical principles and practices among manufacturers in their relations with one another, whatever their trade or section. It is to coöperate with the agencies of government in the efficient performance of their proper functions and in the preservation of both the form and substance of those political institutions which have been for one hundred and thirty-eight years the world's inspiration, and the strongest recognized defenses ever erected by man for the protection of his rights to life, liberty, and the pursuit of happiness. It is to keep American industry and America itself a continuing example to mankind, and in other proper ways coöperate in establishing "peace on earth, good will to men."

However satisfactory our purely economic conditions may

seem to be, and however high and impregnable may appear the walls of our individual and corporate surpluses of gold, those who run may read the signs of multiplying dangers to our security. As a man's or a nation's moral or material wealth increases, so increase in progressive proportion their responsibilities and the occasions for their discharge. Mere philanthropies that express themselves in material gifts, however lavish in numbers and amounts, will not suffice for the needs of the times; for such munificences often create more problems than they solve, and by them men can not purchase or earn exemption from the common tasks of life.

Without meaning to discount the value of or to discourage the marvelous generosities of these times, about which we read almost daily among the crime news on the front pages of our newspapers, I am profoundly convinced that the sort of philanthropy which America now needs most is the philanthropy of energy as well as vision, that which proves itself by the readiness of non-commissioned, undecorated soldiership in the ceaseless war against the enemies of progress and the everlasting powers of darkness. Yes, indeed, there are innumerable questions at this moment, which can not be answered by the argument of economic prosperity; and upon the shoulders of no group in society does the responsibility for answering those questions rest more heavily than upon those of manufacturers. And however high his station or inconspicuous his position, every manufacturer has a definite relationship to the task from which he can not withdraw with honor.

While the specific and very vital purposes for which our association was created preclude our corporate participation in other worthy movements not directly related to our prescribed program, we should and do have a very profound interest in all questions of whatever character which touch our national life at any point. Our industrial future is so inextricably bound up with our moral and political futures that it has become impossible to differentiate between them or to treat separately the problems that arise in any field. Abnormal political conceptions which gather enough force to sweep a great state like Wisconsin are not to be disregarded by industry as something beyond its material concern. For strange politics wherever

manifested betokens strange economics, and vice versa. It has come to pass that in the present state of our national life political attitudes of all sorts are determined more by the interpretations of economic law than by purely political considerations. Then, where is the self-enclosed, narrow-eyed, mentally-impoverished manufacturer who has the gall to ask in polite society: "What is there for manufacturers as a distinct, organized group to do?"

There is unfortunately no drafting system for the army of good citizenship or for group movements in times of peace, and no punishment for slackers except that inflicted by awakened consciences or by the decrees of a post mortem court. So, my appeal is for volunteers armed with something else than alibis. Our association has a great work to do which only manufacturers acting together can do or will do. After four years of mingling with the craft in every part of the country, and of sincerely endeavoring in all my known ways to serve it and my country helpfully, I have tried to interpret to you what I believe to be the composite ideals of all enlightened manufacturers, and to indicate as clearly as I could what I conceive to be some of the specific tasks before us.

Upon whatsoever shoulders the mantle of leadership of this organization is placed by your hands for the next year, I summon you to his untiring, unexcusing assistance; and on your behalf and in the name of your organization, I invite into the fraternal fellowship of constructive service every manufacturer of every trade and section, who has intelligence enough to recognize his unduplicated opportunity and duty, and the faith, courage, and will necessary to their helpful appropriation. Thinking through the year ahead of us in the projected light of those immediately preceding, let me place this crown of gold upon the wooden image that I have carved:

"Let every American, every lover of liberty, every well-wisher to his posterity swear by the blood of the Revolution never to violate in the least particular the laws of the country and never to tolerate their violation. Let every man remember that to violate the law is to trample on the blood of his father, and to tear the charter of his own and his children's liberty. Let reverence for the laws be breathed by every American

mother to the lisping babe that prattles on her lap; let it be taught in schools, in seminaries, and in colleges; let it be written in primers, in spelling books, and in almanacs; let it be preached from the pulpit, proclaimed in legislative halls, and enforced in courts of justice. And, in short, let it become the political religion of the nation, and let the old and the young, the rich and the poor, the grave and the gay of all sexes and tongues and colors and conditions sacrifice unceasingly upon its altars."

These are not merely the mental sparks from a matchless forge of thought, flying into the spaces of time. They are the enduring soul flashes of an unsurpassed American, a man in all his parts, Abraham Lincoln.

THOMAS ALVA EDISON

LOOKING BACK OVER FORTY YEARS

Thomas A. Edison, the best known of our modern inventors, was born in Milan, Ohio, in 1847. Among his many inventions perhaps none has been more useful than the incandescent lamp. The following speech was delivered in response to that of Mr. Hulbert which is printed in Volume VI at the dinner in honor of Mr. Edison, given by the New York Edison Company in commemoration of forty years of Edison service in the City of New York, September 11, 1922. The speech was read by Mr. Charles Edison who responded for his father.

Mr. President Hulbert, I thank you sincerely for your courteous presentation of the freedom of the City and will you kindly convey to His Honor, Mayor Hylan, and to the Honorable Board of Aldermen of the City of New York my deep-felt appreciation of the distinguished honor conferred on me and of which I am very proud.

This commemorative celebration has a deep personal significance to me, for the Pearl Street Station was the greatest adventure of my life. It was akin to venturing on an uncharted sea. No precedents were available. I felt the sense of a great responsibility, for unknown things might happen on turning a mighty power loose under the streets and in the buildings of lower New York. However, I kept my own counsel. Thanks to the faithful coöperation of my unfailing companions, the Pearl Street Station was carried promptly to the point of successful operation. The later development of the industry is a matter of history.

As I look around this assemblage, my thoughts run backward to those days. Although Father Time has laid his silvery fingers upon us, the memory of our early struggles at Pearl Street affords a pleasant retrospect. It is natural as I sit

to-night surrounded by so many of my old friends and fellow workers, there should be mingled with my joy something of sadness as I think of the men whose companionship we can no longer share. If there be some addition through my work to the resources of human welfare, that benefit has accrued largely through my good fortune in being favored with the devotion of my associates willing to throw their all into my melting pot. I have never ceased being grateful to the Edison men whose friendship I have enjoyed ever since the morning, fifty years ago, when I landed here from the Boston boat.

To the wider circle of friends, I must express the fullest appreciation of the encouragement that has enabled me to perfect various inventions, and is notably embodied in the splendid public utilities bearing my name, of which The New York Edison Company is typical. I would think more highly, perhaps, of the little I have done if I did not feel it to be only a promise of what lies before. There is still much to be done in the promotion of human happiness and comfort. [Loud and prolonged applause.]

CHARLES WILLIAM ELIOT

USES OF EDUCATION FOR BUSINESS

Address by Charles W. Eliot, President of Harvard University 1869–1909 (born in Boston, March 20, 1834, died, August, 1926) delivered at the annual meeting of the Chamber of Commerce of the State of New York, November 18, 1890. Dr. Eliot was one of the great Americans, crowned by many years of wisdom and service. His leadership was aided in no small degree by his ability as a speaker. He was for fifty years a master of clear, dispassionate, convincing discourse. Other speeches by Dr. Eliot are printed in Volumes II and VII.

MR. PRESIDENT AND GENTLEMEN OF THE CHAMBER OF COMMERCE:—Before we can talk together to advantage about the value of education in business, we ought to come to a common understanding about the sort of education we mean and the sort of business. Nobody doubts that primary and grammar-school training are useful to everybody; or that high-school training is advantageous for a clerk, salesman, commercial traveler, or skilled workman; or that technical or scientific school training is useful to an engineer, chemist, electrician, mechanician, or miner. Our question is, of what use is the education called "liberal" to a man of business? The education called liberal has undergone a great expansion during our generation, and is now, in the best institutions, thoroughly conformed to modern uses. All universities worthy of the name—even the oldest and most conservative—now supply a broad and free range of studies, which includes the ancient subjects, but establishes on a perfect equality with them the new and vaster subjects of modern languages and literature, history, political science, and natural science.

We must not think of the liberal education of to-day as dealing with a dead past—with dead languages, buried peoples,

and exploded philosophies; on the contrary, everything which universities now teach is quick with life and capable of application to modern uses. They teach indeed the languages and literature of Judea, Greece, and Rome; but it is because those literatures are instinct with eternal life. They teach mathematics, but it is mathematics mostly created within the lifetime of the older men here present. In teaching English, French, and German, they are teaching the modern vehicles of all learning—just what Latin was in mediæval times. As to history, political science, and natural science, the subjects themselves, and all the methods by which they are taught, may properly be said to be new within a century. Liberal education is not to be justly regarded as something dry, withered, and effete; it is as full of sap as the cedars of Lebanon.

And what sort of business do we mean? Surely the larger sort of legitimate and honorable business; that business which is of advantage both to buyer and seller, and to producer, distributor, and consumer alike, whether individuals or nations, which makes common some useful thing which has been rare, or makes accessible to the masses good things which have been within reach only of the few—I wish I could say simply, which makes dear things cheap; but recent political connotations of the word cheap [laughter] forbid. We mean that great art of production and exchange which through the centuries has increased human comfort, cherished peace, fostered the fine arts, developed the pregnant principle of associated action, and promoted both public security and public liberty.

With this understanding of what we mean by education on the one hand and business on the other, let us see if there can be any doubt as to the nature of the relations between them. The business man in large affairs requires keen observation, a quick mental grasp of new subjects, and a wide range of knowledge. Whence come these powers and attainments—either to the educated or to the uneducated—save through practice and study? But education is only early systematic practice and study under guidance. The object of all good education is to develop just these powers—accuracy in observation, quickness and certainty in seizing upon the main points of a new subject, and discrimination in separating the trivial from the important

in great masses of facts. This is what liberal education does for the physician, the lawyer, the minister, and the scientist. This is what it can do also for the man of business; to give a mental power is one of the main ends of the higher education. Is not active business a field in which mental power finds full play? Again education imparts knowledge, and who has greater need to know economics, history and natural science than the man of large business?

Further, liberal education develops a sense of right, duty, and honor; and more and more, in the modern world, large business rests on rectitude and honor, as well as on good judgment. [Applause.] Education does this through the contemplation and study of the moral ideals of our race; not in drowsiness or dreaminess or in mere vague enjoyment of poetic and religious abstractions, but in the resolute purpose to apply spiritual ideals to actual life. The true university fosters ideals, but always to urge that they be put in practice in the real world. When the universities hold up before their youth the great Semitic ideals which were embodied in the Decalogue, they mean that those ideals should be applied in politics. When they teach their young men that Asiatic ideal of unknown antiquity, the Golden Rule, they mean that their disciples shall apply it to business; when they inculcate that comprehensive maxim of Christian ethics, "Ye are all members of one another," they mean that this moral principle is applicable to all human relations, whether between individuals, families, states, or nations. [Applause.]

Now, there is no field of human activity in which ideals applied are of more value than in business. Again, higher education has always made great account of the power of expression in speech and writing, whence has arisen an opinion that liberal education must be less useful to the man of business than to the lawyer, or minister, because the business man has less need than they of this power. It seems to me that this view is no longer true. Have we not all seen, in recent years, that leading men of business, particularly those who act for corporations, have great need of a highly trained power of clear and convincing expression? Business men seem to me to need, in speech and writing, all the Roman terseness and the

French clearness; the graces and elegancies of literary style they may indeed dispense with, but not with the greater qualities of compactness, accuracy, and vigor. It is a liberal education indeed which teaches a youth of fair parts and reasonable industry to speak and write his native language strongly, accurately, and persuasively. That one attainment is sufficient reward for the whole long course of twelve years spent in liberal study. [Applause.]

But you may say: This is all theory; what are the facts with regard to the connection between higher education and successful business life? To investigate the results actually obtained in this respect by the American colleges during the past forty or fifty years would require the coöperation of a very large number of persons; for no satisfactory result could be reached which was not based on an intimate knowledge of the careers and personal fortunes of thousands of men who are in no sense public men. Business life does not necessarily bring a man before the public as the life of a lawyer, minister, or politician does; each individual can only report the facts which have fallen under his personal observation. My own class in Harvard College numbered eighty-nine at graduation. Eleven of that number, or one-eighth of the whole, have attained remarkable success in business—a larger proportion than have distinguished themselves to a corresponding degree in any other walk of life. [Applause.]

Among the young men who have graduated from Harvard University within forty years, I have seen many cases of rapid advancement from the bottom to the top of business corporations in great variety. A young man leaves college at twenty-three and goes into a cotton mill at the bottom; and in four years he is superintendent. Another lands in a Western city, three days after his graduation, without a dollar, and without a friend in the city, and ten years afterwards he is the owner of the best establishment for printing books in that city. A young man six years out of college is superintendent of one of the largest woolen mills in the United States. Another, but a little older, is the manager of one of the most important steel works in the country.

These are but striking examples of a large class of facts. In

eastern Massachusetts graduates of Harvard get greatly more than their due numerical proportion of the best places in banking, insurance, transportation, and manufacturing. This is the case not only in the old, well established occupations, but in the new as well. For example, the president of the corporation which controls one of the newest industries in the world is a Harvard first scholar. I speak from no little personal observation when I say that there is no more striking general fact about the graduates of Harvard during the past fifty years than their eminent success in business. From one-fifth to one-third of the members of the successive graduating classes ultimately go into business. The same is probably true of many another American college.

Finally, successful business men themselves give no doubtful answer to the question we are considering. I observe that successful business men, with the rarest exceptions, wish their sons to be educated to the highest point the sons can reach. No matter whether the father be himself an educated man or not; when his success in business has given him the means of educating his children he is sure to desire that they receive a liberal education whether they are going into business or not.

I should not worthily represent here the profession to which I belong if I did not say in closing that liberal education is an end in itself, apart from all its utilities and applications. When we teach a child to read, our primary aim is not to enable it to decipher a way-bill or a receipt, but to kindle its imagination, enlarge its vision, and open for it the avenues of knowledge. The same is true of liberal education in its utmost reach. Its chief objects for the individual are development, inspiration, and exaltation; the practical advantages which flow from it are incidental, not paramount.

For the community the institutions of higher education do a like service. They bring each successive generation of youth up to levels of knowledge and righteousness which the preceding generation reached in their maturity. Public comfort, ease and wealth are doubtless promoted by them; but their true and sufficient ends are knowledge and righteousness. [Prolonged applause.]

GEORGE F. EYRICH, JR.

THRIFT AND CITIZENSHIP

The following address deals with one of the most important influences toward thrift in the country, that of the building and loan associations. It was broadcast in Cincinnati, Ohio. The Honorable George F. Eyrich, Jr., is judge of the Municipal Court of Cincinnati, Ohio, and is a director of the Victoria Savings and Loan Association.

THE Victoria Savings and Loan Association of Cincinnati is to-night celebrating its recent attainment of reaching the million-dollar mark in assets. It is Cincinnati's newest $1,000,000 institution. We are signally honored in doing this by the presence of some of the pioneers and veterans, not only of our own association, but of the building and loan movement in general.

From them we get a glimpse of the past and out of that past comes visions of courage, self-sacrifice, loyalty and devotion. Their work and character give us incentive and inspiration. These men, who have made the building and loan movement the success which it is, had the vision to see the future possibilities of the home-owning idea. They realized that the hope of any to-morrow lies in the development of the plans made in the yesterdays. Well might we join with the author when he wrote, "They were men of vision with their feet on the ground."

The building associations of this great country of ours reach out and directly affect the lives of millions of our people, rendering a service which helps our citizens to help themselves. There is no nobler service. They are doing their part to build up a substantial citizenship. They teach thrift and the saving habit, thus implanting in the minds of all with whom they come in contact the value of conservatism. They encourage

the saver to invest his savings in a home and aid him financially toward that goal, thus not only teaching that person the value of systematic saving, not only directing his savings in healthy channels, but establishing him and his family in a home of their own.

The phenomenal success of the building and loan movement in the century of its progress, is due entirely to the fact that its objective makes for a better and more patriotic citizenship, for there is nothing which tends more toward stability among peoples than the resultant security and self-confidence of the home-owning man. Man without responsibility is likened to a ship without a rudder: he drifts with the tide, is blown by the winds and finally lands in the harbor of least resistance.

On the other hand, a man with a home of his own, with the responsibility of maintaining and paying for it, becomes a virile part of any community. His interest in the affairs of his city, state and nation is broadened by his holdings. He is willing and ready to lend his aid for bettering the place in which he lives, anxious, through necessity, to improve himself and family by strict attention to his work, and last but not least, is desirous of keeping himself informed of the changes taking place and the reasons for those changes.

Being a home owner, he becomes active where once inactivity was bearing him down; patriotic, where once the affairs of his country gave him no thought; respected, where once respect had no significance for him; industrious, where once his work was only a means toward an insatiable desire for the pleasure to follow; and now looked up to by his family, where once his association among them was only borne through family fealty; in fact, through the opportunity afforded by a building and loan association, he becomes a real American, respected by all with whom he comes in daily contact.

Is there any movement comparable to this which preaches the saving habit, affords home-ownership and makes for a happier and more contented people, thus making for the type of citizenship to which we point with pride?

This country, in order to continue its matchless progress, must preserve the quality of its citizenship.

The men, or organization, who develop thrift among the

people and give that thrift expression in the form of progress in the community, through the building of homes, are performing a real service to the nation. We believe that our institution is developing stability and love for country among our people and contributing to the happiness of our citizenship. This is a practice of true Americanism in which we find much pleasure in being engaged. It gives us hope for and confidence in the future of our country. No more important or happier service can come to any individual or institution.

MIRIAM A. FERGUSON

WOMEN IN BUSINESS

Mrs. Miriam A. Ferguson was Governor of Texas 1924–26, succeeding her husband. The following address at a Convention of Women discusses the growing importance of women in business.

As a co-worker—a woman governor, walking where men have walked alone and sitting alone where men have sat—I know something of the struggles you have had and something of the obstacles you have overcome—struggles and obstacles the more difficult to conquer since you are women.

We have worked hard that women should be allowed their present places, but work, once accomplished, becomes only a background; our mistakes have been made that we may profit by them in the future, that our younger sisters and our daughters may benefit by our past.

To-day is the time when we may lay our plans for the future, when we may look well at the great problems that lie before all business women, for women have a greater problem than men. We are new to our work and we face the criticisms of those well-meaning masculine souls who gave us this new employment with just a little more than fear and trembling. They like us, do the men; they will all stand right up in meeting and declare that the world cannot get along without us—but they are still a little worried that in some of the new work we seem to be able to get along without them.

We really cannot blame the men; they have had their own way so long and we have cheered them so resoundingly that we have only ourselves to blame. And after all, they are a side issue in our future. They have given us our chance; now it is time for us to prove that our talk about the chance was not just talk. We have a serious business before us.

I believe that women may do great things for the business world. It is an old thing to talk of woman's intuition and her keen grasp on the little things of life. Yet wherever you find a successful woman, you find a woman who has taken her womanly ways along with her into her business world; a woman who has solved her problems with her heart as well as her head; a woman who has not allowed maudlin sentiment to overbalance her belief in kindliness and justice and fair play.

This does not mean that I condone the mannish woman. If a woman is going to be mannish, let her stay away from me. God made us women and gave us rare opportunities as women; let the men profit by their own peculiar little mannerisms. There is no excuse for the woman in business unless she is going to stay a woman there. If she is going to ape men, let her stay at home and let the men keep right on as they have been going. We made our plea to get into the business world that we might better it. If we are going to do just as the men have done, we certainly cannot do better than they have done.

I heartily commend the woman who has the fighting heart in her, who will leave the peaceful, quiet ways of her grandmothers to battle against unknown odds, and who has the courage to keep on fighting until she succeeds. I congratulate her, I honor her, and I am proud of her. I am glad I live today, rather than fifty years ago, that I may see the things we women have started. Let us build wisely and well, that the next generations may go on to finer deeds and firmer building.

CYRUS WEST FIELD

STORY OF THE ATLANTIC CABLE

Address of Cyrus W. Field, projector of the ocean telegraph (born in Stockbridge, Mass., November 30, 1819; died in New York City, July 12, 1892), delivered at a banquet given in his honor by the Chamber of Commerce of the State of New York, November 15, 1866, in commemoration of the final completion and successful working of the Atlantic cables.

MR. PRESIDENT:—I thank you for the kind words which you have spoken; and you, gentlemen, for the manner in which you have responded to them. It is pleasant to come home after a long absence and especially when a warm welcome meets you at the door. It is pleasant to see familiar faces and hear familiar voices; to be among old neighbors and friends and to be assured of their regard and approbation. And now to receive such a tribute as this from the Chamber of Commerce of New York and from this large array of merchants and bankers and eminent citizens is very grateful to my heart.

The scene before me awakens mingled recollections. Eight years ago the Atlantic telegraph had won brief success; and in this very hall we met to celebrate our victory. Alas for our hopes! How soon was our joy turned into mourning. That very day the cable departed this life. It went out like a spark in the mighty waters. So suddenly it died that many could not believe that it ever lived. To-night we meet to rejoice in a success which I believe will be permanent. But many who were with us then are not here. Captain Hudson has gone to his grave. Woodhouse, the English engineer who was with our own Everett in the *Niagara,* sleeps in his native island. Others who took an early part in the work are no more among the living. Lieutenant Berryman, who made the first soundings across the Atlantic died for his country in the late war

on board his ship off Pensacola. His companions, Lieutenant Strain, the hero of the ill-fated Darien expedition, and Lieutenant Thomas, both are gone. So are John W. Brett, my first associate in England; Samuel Statham, Sir William Brown, the first chairman of the Atlantic Telegraph Company, and many, many others. My first thought to-night is of the dead; and my only sorrow that those who labored so faithfully with us are not here now to share our triumph.

In the letter inviting me to accept of this banquet, you expressed a wish "to hear from my lips the story of this great undertaking." That, sir, would be a very long story, much beyond your patience and my strength. I should have to take you forty times across the Atlantic and half as many to Newfoundland. Still, I will endeavor in a brief way to give you some faint outlines of the fortunes of this enterprise.

It is nearly thirteen years since half a dozen gentlemen of this city met at my house for four successive evenings and around a table covered with maps and charts and plans and estimates, considered a project to extend a line of telegraph from Nova Scotia to St. John's, in Newfoundland, thence to be carried across the ocean. It was a very pretty plan on paper. There was New York and there was St. John's, only about twelve hundred miles apart. It was easy to draw a line from one point to the other—making no account of the forests and mountains and swamps and rivers and gulfs that lay in our way. Not one of us had ever seen the country or had any idea of the obstacles to be overcome. We thought we could build the line in a few months. It took two years and a half. Yet we never asked for help outside our own little circle. Indeed, I fear we should not have got it if we had, for few had any faith in our scheme. Every dollar came out of our own pockets. Yet I am proud to say no man drew back. No man proved a deserter; those who came first into the work have stood by it to the end. Of those six men four are here to-night; Mr. Peter Cooper, Moses Taylor, Marshall O. Roberts, and myself. [Applause.] My brother Dudley is in Europe and Mr. Chandler White died in 1856 and his place was supplied by Mr. Wilson G. Hunt, who is also here. Mr. Robert W. Lowber was our Secretary. To these gentlemen as my

associates it is but just that I should pay my first acknowledgments.

From this statement you will perceive that in the beginning this was wholly an American enterprise. [Applause.] It was begun and for two years and a half was carried on solely by American capital. Our brethren across the sea did not even know what we were doing away in the forests of Newfoundland. Our little company raised and expended over a million and a quarter of dollars before the Englishmen paid a single pound sterling. [Cheers.] Our only support outside was in the liberal charter and steady friendship of the Government of Newfoundland for which we were greatly indebted to Mr. E. M. Archibald, then attorney-general of that colony, and now British consul in New York. And in preparing for an ocean cable, the first soundings across the Atlantic were made by American officers in American ships. [Applause.] Our scientific men—Morse, Henry, Bache, and Maury—had taken great interest in the subject. The United States ship *Dolphin* discovered the telegraph plateau as early as 1853; and the United States ship *Arctic* sounded across from Newfoundland to Ireland in 1856, a year before Her Majesty's ship *Cyclops,* under command of Captain Dayman, went over the same course. This I state not to take aught from the just praise of England but simply to vindicate the truth of history.

It was not until 1856—ten years ago—that the enterprise had any existence in England. In that summer I went to London and there with Mr. John W. Brett, Mr. (now Sir) Charles Bright, and Dr. Whitehouse organized the Atlantic Telegraph Company. Science had begun to contemplate the possibility of such an enterprise; and the great Faraday cheered us with his lofty enthusiasm. Then, for the first time, was enlisted the support of English capitalists; and then the British Government began that generous course which it has continued ever since—offering us ships to complete soundings across the Atlantic and to assist in laying the cable, and an annual subsidy for the transmission of messages. The expedition of 1857 and the two expeditions of 1858 were a joint enterprise in which the *Niagara* and the *Susquehanna* took part with the *Agamemnon,* the *Leopard,* the *Gorgon* and the *Valorous;*

and the officers of both navies worked with generous rivalry for the same great object. The capital—except one quarter which, as you have said, was taken by myself—was subscribed wholly in Great Britain. The directors were almost all English bankers and merchants. Though among them was one gentleman whom we are proud to call an American, Mr. George Peabody, a name honored in two countries, since showered with princely benefactions upon both—who, though resident for nearly forty years in London where he has gained abundant wealth and honors, still clings to the land of his birth; declining the honor of a baronetcy of the United Kingdom to remain a simple American citizen. [Loud cheers.]

With the history of the expeditions of 1857–58 you are familiar. On the third trial we gained a brief success. The cable was laid, and for four weeks it worked, though never very brilliantly, never giving forth such rapid and distinct flashes as the cables of to-day. It spoke, though only in broken sentences. But while it lasted no less than four hundred messages were sent across the Atlantic. You all remember the enthusiasm which it excited. It was a new thing under the sun, and for a few weeks the public went wild over it. Of course, when it stopped the reaction was very great. People grew dumb and suspicious. Some thought it was all a hoax, and many were quite sure that it had never worked at all. That kind of odium we have had to endure for eight years until now I trust we have at last silenced the unbelievers.

After the failure of 1858 came our darkest days. When a thing is dead it is hard to galvanize it into life. It is more difficult to revive an old enterprise than to start a new one. The freshness and novelty are gone and the feeling of disappointment discourages further effort. Other causes delayed the new attempt. This country had become involved in a tremendous war; and while the nation was struggling for life it had no time to spend in foreign enterprise.

But in England the project was still kept alive. The Atlantic Telegraph Company kept up its organization. It had a noble body of directors who had faith in the enterprise and looked beyond its present low estate to ultimate success. I cannot name them all, but I must speak of our chairman—the

Right Honorable James Stuart Wortley, a gentleman who did not join us in the hour of victory, but in what seemed the hour of despair—after the failure of 1858—and who has been a steady support through all these years. The Deputy Chairman, Mr. Lampson has been made a Baronet for his connection with the enterprise; our faithful Secretary, Mr. Saward, too, did much to keep alive the interest of the British public.

All this time the science of submarine telegraphy was making progress. The British Government appointed a commission to investigate the whole subject. It was composed of eminent scientific men and practical engineers—Galton, Wheatstone, Fairbairn, Bidder, Varley, Latimer, and Edwin Clark—with the Secretary of the Company, Mr. Saward—names to be held in honor in connection with this enterprise along with those of other English engineers such as Stephenson, and Brunel, and Whitworth, and Penn, and Lloyd, and Josiah Field, who gave time and thought and labor freely to this enterprise, refusing all compensation. This commission sat for nearly two years and spent many thousands of pounds in experiments. The result was a clear conviction in every mind that it was possible to lay a telegraph across the Atlantic. Science was also being all the while applied to practice. Submarine cables were laid in different seas—in the Mediterranean, in the Red Sea, and the Persian Gulf. The latter was laid by my friend, Sir Charles Bright, who thus rendered another service to his country and gained fresh title to the honor which was conferred upon him for his part in laying the first Atlantic cable.

When the scientific and engineering problems were solved we took heart again and began to prepare for a fresh attempt. This was in 1863. In this country—though the war was still raging—I went from city to city holding meetings and trying to raise capital, but with poor success. Men came and listened and said "it was all very fine," and "hoped I would succeed," but did nothing. In one of the cities they gave me a large meeting and passed some beautiful resolutions and appointed a committee of "solid men" to canvass the city, but I did not get a solitary subscriber! In this city I did better, though money came by the hardest work. By personal solicitations, encouraged by you, sir, and other good friends, I succeeded in

raising £70,000. Since not many had faith, I must present one example to the contrary, though it was not till a year later. When almost all deemed it a hopeless scheme one gentleman of this city came to me and purchased stock of the Atlantic Telegraph Company to the amount of $100,000. That was Mr. Loring Andrews, who is here this evening to see his faith rewarded. [Applause.] But at the time I speak of, it was plain that our main hope must be in England, and I went to London. There too, it dragged heavily; there was a profound discouragement. Many had lost before and were not willing to throw more money into the sea. We needed £600,000, and with our utmost efforts we had raised less than half, and there the enterprise stood in a deadlock. It was plain that we must have help from some new quarter. I looked around to find a man who had broad shoulders and could carry a heavy load, and who would be a giant in the cause. It was at this time I was introduced to a gentleman whom I could hold up to the American public as a specimen of a great-hearted Englishman, Mr. Thomas Brassey. You may never have heard his name, but in London he is known as one of the men who have made British enterprise and British capital felt in all parts of the earth. I went to see him, though with fear and trembling. He received me kindly, but put me through such an examination as I never had before. I thought I was in the witness-box. He asked every possible question, but my answers satisfied him, and he ended by saying that "it was an enterprise which ought to be carried out and that he would be one of ten men to furnish the money to do it." This was a pledge of £60,000 sterling! Encouraged by this noble offer I looked about to find another such man, though it was almost like trying to find two Wellingtons. But he was found in Mr. John Pender of Manchester. I went one day to his office in London and we walked together to the House of Commons, and before we got through he said he would take an equal share with Mr. Brassey.

The action of these two gentlemen was a turning-point in the history of our enterprise, for it led shortly after to a union of the well-known firm of Glass, Elliott & Company with the Gutta-Percha Company, making of the two one grand concern, which included not only Mr. Brassey and Mr. Pender, but other

men of great wealth, such as Mr. George Elliott, and Mr. Barclay of London, and Mr. Henry Bewley of Dublin, and which thus reinforced with immense capital took up the whole enterprise in its strong arms. We needed, I have said, £600,000, and with all our efforts in England and America we had raised only £285,000. This new company now came forward and offered to take up the whole remaining £315,000 besides £100,000 of the bonds and to make its own profits contingent on success! Mr. Richard A. Glass was made Managing Director, and gave energy and vigor to all its departments, being admirably seconded by the Secretary, Mr. Shuter. Mr. Glass has been recently knighted for his services in carrying out the Atlantic Telegraph—an honor which he most justly deserves.

A few days after a half dozen gentlemen joined together and bought the *Great Eastern* to lay the cable. At the head of this company was placed Mr. Daniel Gooch, member of Parliament and chairman of the Great Western Railway, who was with us in both expeditions which followed, and who for his services has been made a baronet of the United Kingdom. His son, Mr. Charles Gooch, a volunteer in the service, who worked faithfully on board the *Great Eastern,* we are happy to welcome here to-night. [Applause.]

The good fortune which favored us in our ship favored us also in our commander. Many of you know Captain Anderson [applause] who was for years in the Cunard line. You may have crossed the sea with him, and you remember how kind he was; how clear-eyed and prompt in his duty, and yet always a quiet and modest gentleman. How well he did his part in two expeditions the result has proved, and it was just that a mark of royal favor should fall on that manly head.

Thus organized, the work of making the new Atlantic cable was begun. The core was prepared with infinite care under the able superintendence of Mr. Chatterton and Mr. Willoughby Smith; and the whole was completed in about eight months. As fast as ready it was taken on board the *Great Eastern* and coiled in three enormous tanks; and on July 15, 1865, the ship started on her memorable voyage.

I will not stop to tell the story of that expedition. For a week all went well; we had paid out twelve hundred miles

of cable and had only six hundred miles further to go when, hauling in the cable to remedy a fault, it parted and went to the bottom! That day I can never forget—how men paced the deck in despair looking out on the broad sea that had swallowed up their hopes; and then how the brave Canning for nine days and nights dragged the bottom of the ocean for our lost treasure, and though he grappled it three times, failed to bring it to the surface. The story of that expedition as written by Dr. Russell, who was on board the *Great Eastern,* is one of the most marvelous chapters in the whole history of modern enterprise. We returned to England defeated yet full of resolution to begin the battle anew. Measures were at once taken to make a second cable and to fit out a new expedition; and with that assurance I came home last autumn.

In December I went back again, when lo, all our hopes had sunk to nothing. The Attorney-General of England had given his written opinion that we had no legal right without a special Act of Parliament (which could not be obtained under a year) to issue the new twelve per cent shares on which we relied to raise our capital. This was a terrible blow. The works were at once stopped and the money which had been paid in returned to the subscribers. Such was the state of things only ten months ago. I reached London on December 24, and the next day was not a "Merry Christmas" to me. But it was an inexpressible comfort to have the counsel of such men as Sir Daniel Gooch and Sir Robert A. Glass; and to hear stout-hearted Mr. Brassey tell us to go ahead; and if need were he would put down £60,000 more! It was finally concluded that the best course was to organize a new company which should assume the work; and so originated the Anglo-American Telegraph Company. It was formed by ten gentlemen who met round a table in London and put down £10,000 apiece. I hope the excellent Secretary of this Company, Mr. Dean, who came with us across the ocean will write its history and tell the world what life and vigor were comprised in its board of directors. The great telegraph construction and maintenance company, undaunted by the failure of last year, answered us with a subscription of £100,000; soon after the books were opened to the public through the eminent banking house of J.

S. Morgan & Company, and in fourteen days we had raised the whole £600,000. [Loud applause.] Then the work began again and went on with speed. Never was greater energy infused into any enterprise. It was only the first day of March that the new company was formed and it was registered as a company the next day; yet such were the vigor and dispatch that in five months from that day the cable had been manufactured, shipped on the *Great Eastern,* stretched across the Atlantic, and was sending messages literally swift as lightning from continent to continent. [Prolonged cheers.]

Yet this was not a "lucky hit"—a fine run across the ocean in calm weather; it was the worst weather I ever knew at that season of the year. In the dispatch which appeared in the New York papers you may have read "the weather has been most pleasant." I wrote it "unpleasant." We had fogs and storms almost the whole way. Our success was the result of the highest science combined with practical experience. Everything was perfectly organized to the minutest detail. We had on board an admirable staff of officers, such men as Halpin and Beckwith; and engineers long used to this business, such as Canning, and Clifford, and Temple, the first of whom has been knighted for his part in this great achievement; and electricians such as Professor Thomson of Glasgow, and Willoughby Smith, and Laws; while Mr. C. F. Varley, our companion of the year before, who stands among the first in knowledge and practical skill, remained with Sir Robert Glass at Valentia, to keep watch at that end of the line, and Mr. Latimer Clark, who was to test the cable when done. Of these gentlemen Professor Thomson, as one of the earliest and most eminent electricians of England, has received some mark of distinction. England honors herself when she thus pays honor to science; and it is fitting that the Government which honored chemistry in Sir Humphry Davy should honor electrical science in Sir William Thomson. [Applause.]

But our work was not over. After landing the cable safely at Newfoundland we had another task, to return to mid-ocean and recover that lost in the expedition of last year. This achievement had perhaps excited more surprise than the other. Many even now "don't understand it"; and every day I am

asked "how it was done." Well, it does seem rather difficult—to fish for a jewel at the bottom of the ocean two and a half miles deep, but it is not so very difficult—when you know how. You may be sure we did not go fishing at random, nor was our success mere "luck"—it was the triumph of the highest nautical and engineering skill. We had four ships and on board of them some of the best seamen in England, men who knew the ocean as a hunter knows every trail in the forest. There was Captain Moriarity who was in the *Agamemnon* in 1857-58. He was in the *Great Eastern* last year and saw the cable when it broke; and he and Captain Anderson at once took their observations so exact that they could go right to the spot. After finding it, they marked the line of the cable by a row of buoys; for fogs would come down and shut out sun and stars so that no man could take an observation. These buoys were anchored a few miles apart. They were numbered, and each one had a flag-staff on it, so that it could be seen by day, and a lantern by night.

Thus having taken our bearings we stood off three or four miles so as to come broadside on, and then casting over the grapnel we drifted slowly down upon it, dragging the bottom of the ocean as we went. At first it was a little awkward to fish in such deep water, but our men got used to it and soon could cast a grapnel almost as straight as an old whaler throws a harpoon. Our fishing-line was of formidable size. It was made of rope twisted with wires of steel so as to bear a strain of thirty tons. It took about two hours for the grapnel to reach the bottom, and we could tell when it struck. I often went to the bow and sat on the rope and could feel by the quiver that the grapnel was dragging on the bottom two miles under us. [Applause.] But it was a very slow business. We had storms and calms and fogs and squalls. Still we worked on day after day. Once, on the 17th of August, we got the cable up, and had it in full sight for five minutes, a long slimy monster fresh from the ooze of the ocean's bed; but our men began to cheer so wildly that it seemed to be frightened, and suddenly broke away and went down into the sea. This accident kept us at work two weeks longer; but finally on the last night of August we caught it. We had cast the grapnel

thirty times. It was a little before midnight on Friday night that we hooked the cable, and it was a little after midnight Sunday morning when we got it on board. [Cheers.]

What was the anxiety of those twenty-six hours! The strain on every man's life was like the strain on the cable itself. When finally it appeared it was midnight; the lights of the ship and in the boats around our bows as they flashed in the faces of the men showed them eagerly watching for the cable to appear on the water. At length it was brought to the surface. All who were allowed to approach crowded forward to see it; yet not a word was spoken; only the voices of the officers in command were heard giving orders. All felt as if life and death hung on the issue. It was only when it was brought over the bow and on to the deck that men dared to breathe. Even then they hardly believed their eyes. Some crept toward it, to feel of it to be sure it was there. Then we carried it along to the electricians' room to see if our long-sought treasure was living or dead. A few minutes of suspense and a flash told of the lightning current again set free. Then did the feeling long pent up burst forth. Some turned away their heads and wept. Others broke into cheers, and the cry ran from man to man and was heard down in the engine-rooms deck below deck, and from the boats on the water, and the other ships, while rockets lighted up the darkness of the sea. Then with thankful hearts we turned our faces again to the west. But soon the wind rose and for thirty-six hours we were exposed to all the dangers of a storm on the Atlantic. Yet in the very height and fury of the gale as I sat in the electricians' room a flash of light came up from the deep which, having crossed to Ireland, came back to me in mid-ocean telling that those so dear to me whom I had left on the banks of the Hudson were well and following us with their wishes and their prayers. [Applause.] This was like a whisper of God from the sea bidding me keep heart and hope. The *Great Eastern* bore herself proudly through the storm as if she knew that the vital chord which was to join two hemispheres hung at her stern; and so on Saturday, September 7th, we brought our second cable safely to the shore. [Renewed applause.]

But the *Great Eastern* did not make her voyage alone. Three other ships attended her across the ocean—the *Albany*, the *Medway*, and the *Terrible*—the officers of all of which exerted themselves to the utmost. The Queen of England has shown her appreciation of the services of some of those more prominent in the expedition, but if it had been possible to do justice to all, honors would have been bestowed upon many others; if this cannot be, at least their names live in the history of this enterprise with which they will be forever associated. When I think of them all—not only of those on the *Great Eastern*, but of Captain Commerill of the *Terrible*, and his first officer Mr. Curtis (who with their ship came with us not only to Heart's Content but afterwards to the Gulf of St. Lawrence, to help in laying the new cable), and of the officers of the other ships, my heart is full. Better men never trod a deck. If I do not name them all it is because they are too many; their ranks are too full of glory. Even the sailors caught the enthusiasm of the enterprise and were eager to share in the honor of the achievement. Brave, stalwart men they were—at home on the ocean and in the storm—of that sort that have carried the flag of England around the globe. [Cheers.] I see them now as they drag to shore the end by the beach at Heart's Content, hugging it in their brawny arms, as if it were a shipwrecked child whom they had rescued from the dangers of the sea. God bless them all! [Applause.]

Such, gentlemen, in brief is the story of the telegraph which you have wished to hear. It has been a long hard struggle—nearly thirteen years of anxious watching and ceaseless toil. Often my heart has been ready to sink. Many times when wandering in the forests of Newfoundland in the pelting rain, or on the decks of ships on dark stormy nights—alone, far from home—I have almost accused myself of madness and folly to sacrifice the peace of my family and all the hopes of my life for what might prove after all but a dream. I have seen my companions one and another falling by my side and feared that I too might not live to see the end. And yet one hope has led me on, and I have prayed that I might not taste of death till this work was accomplished. That prayer is an-

swered; and now beyond all acknowledgments to men is the feeling of gratitude to Almighty God. [Applause.]

Having thus accomplished our work of building an ocean telegraph we desired to make it useful to the public. To this end it must be kept in perfect order and all lines connected with it. The very idea of an electric telegraph is an instrument to send messages instantaneously. When a dispatch is sent from New York to London there must be no uncertainty about its reaching its destination and that promptly. This we aim to secure. Our two cables do their part well. There are no way-stations between Ireland and Newfoundland where messages have to be repeated, and the lightning never lingers more than a second in the bottom of the sea. To those who fear that the cables might be used up or wear out I would say for their relief that the old cable works a little better than the new one, but that is because it has been down longer—as time improves the quality of gutta-percha. But the new one is constantly growing better. To show how delicate are these wonderful chords it is enough to state that they can be worked with the smallest battery power. When the first cable was laid in 1858, the electricians thought that to send a current two thousand miles it must be almost like a stroke of lightning; but God was not in the earthquake but in the still small voice. The other day Mr. Latimer Clark telegraphed from Ireland across the ocean and back again with a battery formed in a lady's thimble! [Applause.] And now Mr. Collett writes me from Heart's Content: "I have just sent my compliments to Dr. Gould of Cambridge who is at Valentia with a battery composed of a guncap with a strip of zinc excited by a drop of water the simple bulk of a tear!" [Renewed applause.] The telegraph that will do that we think nearly perfect. It has never failed for an hour or a minute. Yet there have been delays in receiving messages from Europe but these have all been on the land lines or in the Gulf of St. Lawrence, and not on the sea cables. It was very painful to me when we landed at Heart's Content to find any interruption here, that a message which came in a flash across the Atlantic should be delayed twenty-four hours in crossing eighty miles of water. But it was not my fault. My associates in

the Newfoundland company will bear me witness that I entreated them a year ago to repair the cable in the Gulf of St. Lawrence and put our land lines in perfect order. But they thought it more prudent to await the result of the late expedition before making further large outlays. We have therefore had to work hard to restore our lines. But in two weeks our cable across the Gulf of St. Lawrence was taken up and repaired. It was found to have been broken by an anchor in shallow water, and when spliced it proved as perfect as one laid down ten years ago. Since then a new one has been laid, so that we have there two excellent cables.

The land task was more slow. You must remember that Newfoundland is a large country; our line across it is four hundred miles long and runs through a wilderness. In Cape Breton we have another of one hundred and forty miles. These lines were built twelve years ago, and we have waited so long for an ocean telegraph that they have become old and rusty. On such long lines unless closely watched there must be sometimes a break. A few weeks ago a storm swept over the island, the most terrific that had been known for twenty years, which strewed the coast with shipwrecks. This blew down the line in many places and caused an interruption of several days. But it was quickly repaired and we are trying to guard against such accidents again. For three months we have had an army of men at work under our faithful and indefatigable superintendent, Mr. A. M. Mackay, rebuilding the line, and now they report it nearly complete. On this we must rely for the next few months. But all winter long these men will be making their axes hum in the forests of Newfoundland cutting thousands of poles, and as soon as the spring opens will build an entirely new line along the same route. With this double line complete, with frequent station-houses and faithful sentinels watching it, we feel pretty secure. At Port Hood in Nova Scotia we connect with the Western Union Telegraph Company, which has engaged to keep as many lines as may be necessary for European business. This we think will guard against failure hereafter. But to make assurance doubly sure, we shall in the spring build still another line by a separate route crossing over from Heart's Content to Placentia,

which is only about one hundred miles along a good road where it can easily be kept in order. From Placentia a submarine cable will be laid across to the French island of St. Pierre and thence to Sydney in Cape Breton, where again we strike a coach road and can maintain our lines without difficulty. Thus we shall have three distinct lines with which it is hardly possible that there can be any delay. A message from London to New York passes over four lines—from London to Valentia; from Valentia to Heart's Content; from there to Port Hood, and from Port Hood to New York. It always takes a little time for an operator to read a message and prepare to send it. For this allow five minutes at each station—that is enough, and I shall not be content till we have messages regularly from London in twenty minutes. One hour is ample (allowing ten minutes each side for a boy to carry the dispatch) for a message to go from Wall Street to the Royal Exchange and get an answer back again. This is what we aim to do. If for a few months there should be occasional delays we ask only a little patience, remembering that our machinery is new and that it takes time to get it well oiled and running at full speed. But after that I trust we shall be able to satisfy all the demands of the public.

A word about the tariff. Complaint has been made that it is so high as to be very oppressive. I beg all to remember that it is only three months and a half since the cable was laid. It was laid at a great cost and a great risk. Different companies had sunk in their attempts twelve millions of dollars. It was still an experiment of which the result was doubtful. This too might prove another costly failure. Even if successful we did not know how long it would work. Evil prophets in both countries predicted that it would not last a month. If it did, we were not sure of having more than one cable; nor how much work that one would do. Now these doubts are resolved. We have not only one cable but two, both in working order; and we find instead of five words a minute we can send fifteen. Now we are free to reduce the tariff. Accordingly it has been cut down one-half, and I hope in a few months we can bring it down to one-quarter. I am in favor of reducing it to the lowest point at which we can do the business, keeping the lines

working day and night. And then—if the work grows upon us, so enormously that we cannot do it—why we must go to work and lay more cables. [Applause.]

Those who conduct a public enterprise should not object to any fair criticism of the public or of the press, but complaints are sometimes made without reflection, as when fault is found with the cable because the news from Europe may be scanty or unimportant, as if we had any more to do with what passes over the line than the Post-Office Department with the contents of letters that go through the mail. We are common carriers and send whatever comes; and if our brethren of the press keep capable men in the capitals of Europe who will furnish only news which is important we will see that it is delivered here every morning.

Of the results of this enterprise—commercially and politically—it is for others to speak. To one effect only do I refer as the wish of my heart that as it brings us into closer relations with England it may produce a better understanding between the two countries. Let who will speak against England—words of censure must come from other lips than mine. I have received too much kindness from Englishmen to join in this language. I have eaten of their bread and drunk of their cup, and I have received from them in the darkest hours of this enterprise words of cheer which I shall never forget; and if any words of mine can tend to peace and good-will they shall not be wanting. I beg my countrymen to remember the ties of kindred. Blood is thicker than water. America with all her greatness has come out of the loins of England, and though there have been sometimes family quarrels—bitter as family quarrels are apt to be—still in our hearts there is a yearning for the old home, the land of our fathers, and he is an enemy of his country and of the human race who would stir up strife between two nations that are one in race, in language and in religion. [Applause.]

I close with this sentiment, "England and America: Clasping hands across the sea—may this firm grasp be a pledge of friendship to all generations!" [Enthusiastic applause—the audience rising and giving three cheers.]

EDWARD A. FILENE

WHY MEN STRIKE

Edward A. Filene was born in Salem, Massachusetts, in 1860 and is now president of the well-known Boston house of William Filene's Sons Co. His business success is vividly pictured by Mr. Justice Brandeis in his address on "Business—A Profession," which is printed elsewhere in this volume. "In 1891 the Filenes occupied two tiny retail stores in Boston. The floor space of each was only twenty feet square. . . . Twenty years later their sales were nearly $5,000,000 a year. In September, 1912, they moved into a new building with more than nine acres of floor space." But this great business success was not attained by mere devotion to money-making. As Mr. Brandeis points out, "The Filenes have accepted and applied the principles of industrial democracy and of social justice." Mr. Filene has been prominent in business and civic organizations, and he has often spoken on labor and industrial relations. In this address, "Why Men Strike," he is offering not the remedies of a theorist but those which he has actually tried and found practicable. It was given before the Economic Club of New York, May 3, 1922.

WHY do men strike? Primarily because they instinctively dislike to be bossed. All men dislike to be bossed, employer and employee alike. They dislike it because experience has shown that no man is wise enough to have autocratic power over another man. Being mere mortals, at our best, we make mistakes; and if these mistakes affect other men who have to submit to them, they are liable to exaggerate them and rebel against them. They believe that if the decision had lain with them the mistakes would not have been made.

Constructive criticism of a kindly nature is scarce. But the average man finds it easy to criticize the mistakes and evils in a thing. There is, therefore, a tendency on general principles to criticize and resist the employer. If the major part of

strikes is to be avoided we employers must recognize that the inevitable and normal trend is this way. By careful study of the whole situation and wise, sympathetic organization we must meet the tendency.

Men strike because they are injured by real mistakes or because they believe themselves to be injured by the terms of their employment. In such strikes they are often unsuccessful and the grievances remain. For these reasons they sometimes dwell upon the objectionable features of their employment until they become tense and bitter. There grows up in consequence a distrust or hate of the whole present system. Irresponsible leaders who voice and trade on this discontent easily get a following. There is also a reaction toward socialism and communism which are presented as panaceas for the ills that are complained of.

Reaction to Socialism or Communism No Remedy

For many years I have studied carefully the relations between employer and employee, under our so-called capitalistic system. I have also studied socialism and communism as proposed substitutes for it. I am forced to the conclusion that as men are constituted at the present time socialism and communism are not practical remedies. I am convinced also that the greater part of the wealth of employers is legitimately gained and that all the world is richer because of their wealth. Henry Ford is not the only man who has become rich through serving the public. Many an employer's wealth has been, as Mr. Henry Holt has well pointed out, "derived from processes and economies of his own devising and directing without which his income would not exist at all and the income of his employees would be less."

But firmly convinced as I am of this truth, I am just as firmly convinced that the present wage system is not infallible or final, but is only a step on the road from serfdom and slavery to improved forms of just and effective coöperation that the experience and wisdom of men will evolve from generation to generation. But as the present system is the road that must

for the present be utilized for the upward march of all of us, employer and employee alike, we employers will do well to study it carefully with the object of understanding its weaknesses and remedying its defects.

My study of industrial relations has convinced me of four things:

1. That in a political democracy such as ours the autocratic control of industry by employers is a fruitful breeder of strikes and is in the long run impractical;

2. That we often pay counterfeit wages when we intend to pay real wages, thus causing discontent, conflict and strikes;

3. That the present so-called capitalistic system has accumulated and is still using, outgrown ideas and customs that are needlessly offensive to our employees, and that it needs to be brought up to date;

4. That the basic remedy for the evils of industrialism and hence for strikes lies in making business a profession—that is, in realizing, in act as well as in thought, that a business has no right to make a profit except as it serves the community.

Let us briefly review these four conclusions:

1. Industrial Autocracy and Democracy

All of us employers are believers in the right of private property. Almost all of us translate that faith, consciously or subconsciously, into a conviction that our property is so completely our own that society should keep its hand off of it. We hold that if it must touch our property at all it should do so only to the slightest possible extent, and only after having first recognized and acknowledged, that it was interfering with our rights. Of course any analysis of this position shows that it is not very sound. It amounts to setting up property rights as superior to personal rights; to an appeal to society to safeguard our selfish interests against the common interests of the society to which we appeal; to an insistence at times on the duty of government to protect us in our imagined and artificial rights to the detriment and loss of the whole group of citizens of which we are a part. And this view tends, unfortunately, to develop an autocratic spirit among us.

Applying this idea of property as exclusively our own to our relations with our employees, we probably feel that we have undoubted right to determine the conditions under which these employees shall work, provided we do it lawfully. And here we find one of the reasons why men strike—a source of grievance which can be shown to be the real cause of many strikes where other reasons are put forward. Most of our employees —all of those who have been educated in this country—have been taught from childhood that it is their inalienable right as freemen to have a hand in determining the political laws under which they live. They have heard it reiterated by their teachers in the public schools and by the interpreters of our free institutions on every public occasion. They read it in the daily press.

Men so taught are not going to stop short of applying this axiom, that grows out of the political system under which they are governed, to the industrial system under which they live and labor. Inevitably they are claiming the right to have an effective voice in the determining of conditions under which they work. These economic conditions are even more important to them than the political conditions. They have occasion for the expression of their political views at infrequent intervals. They are conscious of the exactions and burdens of government only now and then. But the urge to have an adequate voice in determining industrial conditions is daily, yes hourly, insistent. Every accident that is costly to labor, every additional expense in their living, every new baby, every new ideal, every new material desire such as an automobile or a house, serves as an occasion for reopening the question whether their wages are justly and generously determined. The result of such questioning is surely a further incentive in their minds to the greater assertion of their rights, as the preponderant human factors in industry, to have a voice in the control of conditions of labor and of the rate of wages. And this assertion of right, if opposed by the employer, often means another strike.

Then to this is added the periodic recurrence of bad times, with its masses out of employment, and the fear of the loss of the job—one of the most terrifying apprehensions of the average workingman with a family. Under these conditions men

feel themselves compelled to fight, by strikes or otherwise, for a greater voice in determining the conditions under which they labor. They are led on by the idea that if they have this greater voice they will so regulate and control production and distribution that not only will there be no fear of loss of the job, but there will also be sufficient wages to satisfy their needs and their desires.

My own life-long experience and study as an employer convinces me that autocratic control by employees would be even worse than autocratic control by employers. There is nothing in democracy that can perform miracles in production and distribution. There is nothing in the democratic principle in industry that in itself will take the place of expert knowledge, technical skill and trained industrial vision. No man in the factory, whether employer or employee, if he were hurt by a machine, would be willing to have a committee of his fellow-workmen meet and vote how badly he was hurt and how he should be cured. They would send for the trained, skilled specialist, the doctor or the surgeon. Likewise, when the business is hurt, it cannot be cured by a vote of management-sharing employees, unless those so voting are mentally and technically trained to know what they are voting about and are basically so interested that they will put their best into their decision.

It all comes to this, that autocratic control whether by employer or employee, is bad—the one almost as objectionable as the other; and that men are striking to-day as a protest against autocratic control by capital, and as the most effective way of expressing their demand for an adequate voice in the conditions under which they work. They are vitally interested. They will continue to strike until provision is made for giving them adequate representation in boards of directors or in those shop committees, by whatever name they may be called, in which employers and employees work hand in hand to advance both the business and the legitimate interests of the human beings who put their lives into it and get their livelihood from it. This is largely recognized by employers now and the growth of these joint committees has for some years been marked.

2. Counterfeit Wages

But even if joint-control of management is immensely successful it will not alone remove all the grievances that make men strike. It is necessary now to examine into the second of our causes.

A large proportion of the industrial disputes and strikes are due to the fact of the employee receiving an inadequate wage without the direct fault of the employer. An industrial system that subdivides the manufacturing process until the individual worker is only a part of the machine, and which then denies him participation in management, must of necessity leave him with little if any interest in the business. His main concern will then be in the wage return he gets for his work. Under such conditions, any interference with those wages that reduces their purchasing power, is a serious matter, sure to create discontent and conflict.

"Counterfeit wages" is a term that I have invented—whether good or bad you must judge—to characterize this inadequate wage that comes about from some of the many causes that reduce the purchasing power of money. Counterfeit wages are any wages however large they may be in dollars that will not buy the necessities of life, and enough luxuries to make working for necessities a desirable thing and also to enable the recipient to make modest but adequate provision for sickness and old age. Counterfeit money has no value. Counterfeit wages have too little value when measured against the purposes which wages must serve. It is not a question of how much a man receives but of what he can buy for what he gets. Wages may double, but if prices more than double then wages are counterfeit to the extent that prices have outrun the increased wages.

The causes that turn a good wage into a counterfeit wage are various. The speculation or the profiteering that raises the cost of homes, or the rent of houses, factories or shops may make a draft on the pockets of numberless employees that goes far to turn wages that have been adequate into counterfeit wages. Speculating or profiteering in the necessities of life has the same result. Manipulation of securities of public serv-

ice corporations that raises the price of street car fares, gas and electricity helps to turn a fair wage into a counterfeit wage. The enactment of tariff laws that by crippling our foreign customers shuts down our factories at home, or, by fostering bad trust agreements or undue profits, increases the cost of domestic goods, helps to make wages counterfeit. The merchant who by costly methods of retail or wholesale distribution adds unduly to the manufacturing cost of commodities makes inadequate and counterfeit a wage which might be adequate if goods were sold with less expense. The excessive fixed charges that result from watered stocks and from capitalizing expenses, or unfair "good-will" values, raise the living cost of the purchaser and increase the counterfeit margin of his wage. The inefficient and expensive government, local, state and national, that results from our easy-going American methods of choosing untrained administrators and from the partisanship that neglects the principles of good government in the effort to get and keep office, cuts down the value of every dollar that goes into the pocket of the workman—helps to make them counterfeit. The limiting of output by labor unions, resulting in fewer and higher-cost products, is a method by which the workingmen themselves turn their own dollars and the dollars of other wage-earners into counterfeit. Wittingly or unwittingly, employers and employees alike are often wage counterfeiters.

The fact that wages however large will not buy the things our employees want and need, induces discontent and a sense of being thwarted and wronged. This discrepancy between income and needed outgo makes men ready to listen to the irresponsible agitator who tells them that they are deliberately and constantly being robbed by us employers or by organized finance.

The method of thinking of wages in terms of dollars rather than in terms of commodities, recreation and savings is one that must be changed. There is nothing sacred about it. Together with many other unscientific and defensible features of civilized life, it just "happened" to grow up. Discontent and strikes as a result of counterfeit wages will continue until a method of determining wages is adopted that will keep them fairly proportioned to the outgo essential to the maintenance of the Ameri-

can standard of living—a standard on which we Americans justly pride ourselves and which we employers are generally as willing to pay as our employees are to receive.

The return for paying genuine wages rather than counterfeit more than makes up to the employer and to society for the extra money expenditure. The genuine wage tends to provide happy, healthy, contented and loyal employees.

If their wages are adequate to provide the necessities of life for their families and allow also for recreation and provision for illness and old age, they are increasingly freed from worry and are thereby made more efficient employees. If their wages enable them to buy freely, the value of the American market is maintained, to the profit alike of the manufacturer, the farmer and of the workman who makes and the merchant who sells the product of the factory, mine and the farm. Best of all, it will remove one of the most fertile causes of strikes.

An important part of the responsibility for the adequacy of wages must be assumed by us employers. We are sometimes little schooled in theories of social welfare, have little imagination outside of our own immediate field of business management and are prone to think of our duties in terms of money-success or money-failure to the exclusion of terms of human welfare. It is most often members of our own employer class, also, who turn real wages into counterfeit. This being the case we cannot easily justify ourselves in taking a position of irresponsibility in the premises. The responsibility for reducing the excessive costs of retail distribution belongs to me and to my fellow retail merchants. We employers should fight all excessive capitalization whose fixed charges help to turn into counterfeit the otherwise adequate wages we pay our employees. Our men of finance should see that the English law is adopted and enforced that requires a statement to be made to every purchaser of stock showing the promoter's profit and the real assets and liabilities of the Company. It is up to us to help provide credit unions or other safe and democratic means of saving and investing earnings. The training of the wage-earner in the use of his money so that by purchasing merchandise of good quality at the lowest possible price he will help to keep his wages real, is also our responsibility at least

to a degree. Our responsibility is at least equal to that of our employees to see to it that they are not compelled to pay a street car fare of 10 cents to get to and from our places of business when devoted and wise administration of public service corporations might make 5 or 7 cents adequate. The same thing applies to railroad fares and freight rates. The responsibility to provide comfortable, attractive and sanitary housing at fair prices primarily belongs to the employer of labor. In any event we are responsible if we allow speculation in land and housing so to increase rents as to make wages counterfeit.

Our influence should be thrown, I believe, against excessive tariffs and other forms of interference with trade that, if they increase the profits of the employer at all, do so at the expense of the wage-earner, of the farmer, and of the general public.

We employers should also make use of the price indexes provided by the Department of Labor at Washington, and by several private agencies, as a scientific and business-like aid in an attempt to solve the problem of counterfeit wages through use of a sliding wage scale. It may be that the stabilization of the purchasing power of the dollar along the lines advanced by economists will sometimes help to remove some of the problems of the counterfeit wage. A scientific solution is highly desirable but may take many years to bring about.

If we employers are to have fewer strikes, in the meantime, we must learn to think more of wages in terms of what they will buy than in terms of dollars and cents. When we do this we shall do away with many of the causes that make wages counterfeit. Because a man belongs to our club or our church will no longer be a reason for our standing by supinely and allowing him, by manipulation, speculation or profiteering to make counterfeit the wages we pay.

3. Outgrown Features of the Wage System

Let us now turn to a third reason why men strike.

We all recognize the truth of the statement that our present so-called capitalistic system is still using inherited ideas and

customs that, although not discarded, have really been outgrown. We know also that it needs to readjust its ideas, get rid of old abuses, and reduce the number of points at which friction between employer and employee is generated. Because I am not ready to burn my house down is no reason why I should not repair or replace a dangerous plumbing system. Because we are not ready to destroy the present organization of industry and put socialism or communism in its place, is no reason why we should not get rid of its abuses and bring it up to date.

Many employers and important organizations have made and are still making attempts further to humanize and improve our industrial system. One of the most significant, as well as most courageous, is that made by the Federal Council of Churches of America in formulating and publishing its social creed. This social creed is of very great significance, emanating as it does from a body that represents substantially a half of the American people, and which is one of the most conservative elements in our American life.

This formulation is a creed and an ideal rather than a program of action. Difficulties and differences of opinion will no doubt be encountered in forging these ideals into a working program. Some of them may need to be restated and revised. It is a statement, however, which employers cannot afford to overlook or ignore. Progress is going to be made toward their achievement and leadership will come into the hands of those who undertake to apply, in good faith, such principles as the churches have here formulated. It can hardly be doubted moreover that the stability of our social and economic institutions will depend in no small part on the growth among employees of confidence in the right-mindedness and right-heartedness of the leaders of business and industry.

I do not have time at my disposal in which to discuss at length a social program. I may be indulged, however, in pointing out certain as yet partially achieved goals which a consensus of informed opinion, both among employers and employees, recognizes as practical and just. This moderate program, if achieved, would go far to do away with strikes.

The right of employees to a voice in determining the conditions under which they shall work and to a stable and living wage have already been dealt with. Other goals that are now generally recognized as right and just, include:

(1) the right of employees to unite for purposes of collective bargaining;
(2) a gradual and reasonable reduction in hours of labor;
(3) compensation for industrial accidents as a just charge on industry;
(4) the right of labor to be safeguarded in all matters pertaining to health, steady employment and good working conditions.

Men and women fit for American citizenship, the working hours of whose lives must be spent in stores and factories, in mines and on farms and railroads, must and will demand just solutions of such problems as are presented by these statements of principle. It is to the advantage of us employers to lead in finding these solutions. It is to the advantage of the consumer and of society that we shall do so. If the elimination of outgrown ideas and the righting of old wrongs is left to labor alone, wage conflicts and strikes will continue on an increasing scale. The strike is their principal weapon. If they are forced to fight for their rights they must and will use it.

A great employer of labor said to me during the War, "When we employers in the past have had the advantage of our employees by reason of an over-supply of labor, we have used it for our own selfish ends. Labor now has the whip-hand and is merely doing to us what we have done to it in the past. I wonder," he added, "which of us will be wise enough to end this wasteful process of industrial conflict by first using its period of power wisely and generously?"

The opportunity of the employer has now arrived. The future relations of employer and employee will depend in no small degree and on whether or not employers as a group, by hard thinking and friendy conference with our employees, go honestly at work to bring the industrial system up to date.

4. The Basic Remedy for Strikes

Important for the establishment of good industrial relations as are the three matters of which I have spoken, there is in my judgment a fourth reason of a still more fundamental nature —namely, that business shall more and more become a profession and be carried on in a spirit of service to the community.

The motives with which the employer directs his business and with which the employee works will in the last analysis determine whether there will be industrial war or industrial peace.

Asked recently by the editor of *The Annals* to prepare an article on "A Simple Code of Business Ethics" as one of a series of studies on the ethics of the several business and professional groups, I ventured to base it on two brief formulas:

(1) That a business in order to have the right to succeed, must be of real service to the community;
(2) That real service in business consists in making or selling merchandise of reliable quality for the lowest practicably possible price, provided that merchandise is made and sold under just conditions.

The merchandise must be sold as cheaply as possible so that as many as possible may buy as much as they need. It must be made and sold under just conditions, as one must not oppress his employees in order to make merchandise cheaper than it should be to his customers. But the chief point of the ethics of the profession of business, as I understand it, is that the great buying public is to be served by giving them dependable merchandise at an ever cheaper and cheaper price.

One of the tragedies in our industrial life to-day is that when we employers are finally successful and the difficulties and perplexities are over that in our earlier year prevented us from giving full coöperation in solving the problems of our employees, and we have at last gained the financial freedom that enables us to decide questions between ourselves and our employees on their merits, we so often fail to use our new-found

freedom to this end. We often begin, instead, to use our thought, time and money to build bigger houses than we need, to buy too expensive pictures and live in a needless luxury. We men have learned to simplify our clothing so that in neither cost nor styles is there a yawning gulf between those of employer and employee. But only rarely do we keep our living simplified to any such degree. But even if we are too sensible or public spirited for ostentatious display, we feel that it is our first duty to give large sums of money to hospitals and other philanthropic purposes. For these and like reasons, we throw away the opportunity, won by a life of successful labor, to heal the wounds of industry.

Philanthropy becomes a sin and an offense, when it uses for charity the earnings of industry that should be used for justice to employees and the public.

The first legitimate use of large profits, and the main use, is to reduce prices. These lower prices will, in turn, cause increased demand, increased production and increased total profit at which point prices can again be reduced. It is worse than useless to merely increase production. Prices must at the same time be reduced enough to bring in the greatly increased number of purchasers needed to absorb this greater output. Employers are wrong when they endeavor to obtain mass production through lowering wages to a degree that lessens the number of possible consumers for their product. Employees are wrong when they try to get higher real wages or more work through limiting output. Both will find it far more profitable in the long run to join hands in efforts to furnish reliable and essential merchandise to the public at prices lower than it has been sold before. In this way they will greatly increase the number of consumers and increase the demand for workmen. They will at the same time increase wages, and the purchasing power of those wages.

When this spirit of service comes to be generally recognized for what it is, namely, good business as well as good ethics, the reasons for strikes will have been greatly lessened. The cooperation that will result between employer and employee—between management and labor—is perhaps the nearest we shall need to come to common ownership or the socialization of in-

dustry. Perhaps here is the door through which the strike will make its exit and industrial peace will enter.

The practical and compelling thought in any analysis of the reasons why men strike is found in the fact that the elimination of the cause of strikes is not only good ethics but equally good business. We employers like to think of ourselves both as good business men and as good Americans. In studying and removing the reasons for strikes, we shall find the road to that real coöperation with our employees that will largely satisfy our aspirations in both directions. And a grateful general public, which after all is most concerned in the solution of the industrial question, will applaud and reward our success.

FREDERICK PERRY FISH

EDISON AND THE ELECTRIC LIGHT

Frederick Perry Fish is a prominent lawyer of Boston and was president of the American Telephone and Telegraph Company from 1901 to 1907. He was born in Brookline, Massachusetts, in 1855 and graduated from Harvard in 1875. The following address was delivered at the dinner in honor of Thomas Alva Edison given by the New York Edison Company, at the Commodore Hotel, New York, September 11, 1922.

Mr. Chairman, Mr. Edison and Ladies and Gentlemen: We are celebrating the little Pearl Street Station of forty years ago, which was the foundation of the great electrical development all over the world with which we are so familiar. As Mr. Insull has said, many men have contributed to that development; great engineers and inventors like Dr. Thomson, Mr. Tesla, Dr. Langmuir and Dr. Coolidge; great executives like Mr. Coffin and Mr. Westinghouse who organized and directed the manufacture of the apparatus, and Mr. Lieb and Mr. Edgar in the central stations. Mr. Insull has been a leader both in manufacturing and in central station work. But we must recognize that this whole great development goes back to Mr. Edison. He was the man who originated it. He started it, and placed it upon a firm foundation from the very beginning. It has never departed from that foundation, although it has grown and grown mightily in every direction.

It is a rash thing ever to say that one man is the greatest in his line of achievement; it is futile and absurd to ask who was the greatest poet or the greatest soldier or the greatest statesman; but I believe that if we approach the matter coolly and sanely we shall all be obliged to recognize and to assert that Mr. Edison is the greatest of all the inventors whose work has been recorded in history. [Applause.]

There are many forms of invention and many types of inventor; some inventions are an accident; they say that the discovery of glass was an accident, but it took a real inventor to appreciate the significance of the event when men, sitting around a fire in Asia Minor or Syria, saw glass for the first time, and to realize what benefit it might be in the future for the human race. Sometimes an invention comes as an inspiration. Mr. Edison, I think, has said, that genius is not inspiration but perspiration. [Laughter.] That is only partly true, for sometimes it is inspiration. For instance, I personally am utterly unable to conceive how he ever conceived the simple thought of the carbon filament. To realize that a thing so insignificantly small, and of such material that if touched with a match it would disappear at once, was the basis for lighting by incandescence, required genius. The thought was a real inspiration.

Another form of invention is appreciating a problem and working with full knowledge, by logical processes until that problem is solved.

Another is research; studying persistently the materials and the forces of nature and trying one experiment after another until you finally come to something that is useful. Though some inventors are great in one direction and some in others, Mr. Edison has been great in every form of inventive effort that is known to man.

Among his inventions, the one that to my mind stands out most conspicuously, as one of the very greatest of all inventions that have been made in historic times, is the incandescent lamp, followed as it was by his marvelous work in creating the system of distribution by which that lamp could be utilized. Thus he created incandescent lighting, the greatest possible material boon to the world.

But Mr. Insull has called attention, and so has Mr. Hulbert, to many of Mr. Edison's other marvelous inventions in telegraphy and telephony, the phonograph and the moving pictures. I have only time to say one word about this particular invention of the incandescent lamp and it is a point of view that interests me very much. I am going to preface what I have to say with a remark made by Abraham Lincoln, who,

in 1859, before he was nominated for President, made a speech in Illinois in which he said that there were certain things that had happened in human history that were not only great in themselves, but were particularly great because of what was involved in them and developed from them; he named four.

One was the invention of writing, which was in prehistoric times.

One was the invention of printing, about the fifteenth century.

Another was the discovery of America, and the fourth, strangely enough (and it illustrated the sense and the intelligence and the farsightedness of that great man), was the introduction of the patent system.

Now, ladies and gentlemen, I believe that it is no exaggeration to say that the invention of the little incandescent lamp was of the same class. It was great in itself and preëminently great in the results that have developed from it. The invention itself was most brilliant from every point of view, for it involved not only the highest imagination of the inventor, but a scientific and accurate correlation of the laws of physics, of electricity, of mechanics and of heat, such as no man had ever worked out before; although much attention had been paid to the question of developing an electric light, no real progress had been made until Mr. Edison solved the problem. He did not stop there, he went on, as Mr. Insull has said, and worked out all the fundamentals of the great systems of to-day for lighting and power. One of his great inventions made at the same time, one not so generally appreciated as some others, was his dynamo, which was the first constant potential, self-regulating high efficiency dynamo. In designing it he departed from all precedent, from all the rules of the books, for he said, "I need a low resistance armature and a high field." He was scoffed at by the scientific men of the day for that dynamo, as he was scoffed at for what he said he hoped he could do by way of electric lighting. But in both instances he was right.

It is very interesting to note what some of the great scientific men of the world said about his ideas as to electric lighting, as he talked of them and disclosed them during the years 1879 and 1880. How superior was his thought to that of the great-

est minds of his time! Sylvanus P. Thomson, a great English electrician, spoke of Mr. Edison's "airy ignorance." He said that any system of lighting, depending upon incandescence would fail. Sylvanus Thomson said that, and proved it too by all the rules of the science of the day. President Henry Morton, a famous scientist in this country, said that Edison had done too much really good work to have his name discredited by his talk as to what he thought and hoped and believed he could do with the incandescent lamp. Du Moncel, a famous French scientific man, in 1880, declared that the ideas which Mr. Edison was advancing with reference to the carbon lamp —that was after the carbon lamp had been invented—were examples of "American hoaxes" and this at a time when the carbon lamp was burning. Preece, one of the greatest English inventors, said, that the subdivision of the electric light, which means getting it to a point where it was useful in small units, was an *"ignis fatuus,"* and "hopeless." Those were his words, but Edison went ahead and proved the contrary. To-day we see millions and millions of these lamps in the City of New York, the results of the "hopeless" work of this man.

Now, ladies and gentlemen, the point I want to bring out—for I think it most interesting—is this: that when this incandescent lamp was invented, small as it was and narrow as seemed its place in industry, it was in fact, in and of itself, the real foundation for the most remarkable industrial development that the world has ever seen; even the introduction of steam which was a comparatively slow process contributed little if any more to our material progress. The incandescent lamp has only been in existence forty years, and yet what has grown from it? Consider it first merely from the lighting side. It has resulted in the most perfect illumination that we know anything about; it is a light that can be of any size; it has practically no heat; there are absolutely no products of combustion; the wiring can be so arranged that you can turn on one, two, ten or a hundred lights anywhere and from any point by a proper system of switches; it gives a beautiful light, which can be shaded as you want and can even be turned up and down, if you want so to do. Surely it was a marvelous contribution to convenience, to comfort and to efficiency.

Immediately there was a tremendous demand for it. And what did that mean? The development of a station for supplying and distributing electricity, and that station came, as Mr. Insull has said, through the engineering skill, the persistency and the energy of Mr. Edison. I do not believe that any other man who ever lived could have produced the Pearl Street Station, which had in it, in practicable form, substantially every feature of the great stations of to-day. They started at Pearl Street forty years ago, and from that time on electric lighting has developed until it is what we see to-day. And why? Because people wanted the incandescent lamp. And what was the basis of it? Mr. Edison. [Applause.]

Then came the alternating current system. It started in Europe for use with Mr. Edison's lamp. It was finally brought over here by Mr. Westinghouse, and at the end of the nineties, it was a definite part of the Edison system, merely an attachment, so Mr. Edison should have the credit for the development as well as the men who really brought it into his system.

Many other inventions are part of the history of the incandescent light which helped to bring it to its present position in our houses and on our streets, all inspired by Mr. Edison's work and based on it. But that is not all.

The electric motor had been known before the starting up of the Pearl Street Station, I have heard—I cannot vouch for it—that the first motor was discovered by accident, by a man who wished to hitch together two Gramme machines to run them in series, and he accidentally crossed his belts. The result, to his surprise, was that he found one generator driving the other as a motor. At any rate motors were known. But how many of them were in use? There were none. Why? Because there was no field for them, there was no system of distribution for them, there was no opportunity for them; but just as soon as the central station came for the development of this little Edison's incandescent lamp, then there was a field available for motors, and as men built up their stations of course it was the most natural thing for them to use the motor on the same circuits for the sake of getting additional revenue. Thus electric power distribution became for the first time a reality and from this start on, the Edison lighting system, has

come all our great power development throughout the world. Mr. Edison was back of it all.

Then, also, conditions were ripe for the next great development in the field of electricity, and that was the electric railway. Mr. Edison himself built an electric railroad in 1880. He made a good start, and if he had not had so much else to do he might have gone further with it. At any rate it was because of the existence of the great distribution systems perfected in connection with the use of the incandescent lamp, because of the development of motors as an incident to the operation of incandescent lamps—all due to the original invention of Mr. Edison—that it was realized and determined that electrical energy could be used in the electrical propulsion of cars in subways and on elevated railroads, on city streets and on the great trunk lines of the country. I cannot take time to do more than refer to the fact that the perfection of the storage battery (Mr. Edison has invented one of the greatest value) and of heating, cooking and other electrical household appliances and all special applications of electric power, also go back to invention of the incandescent lamp, as does power distribution itself. Mr. Edison and his work were the basis of the entire development. These great electrical industries, enormous in extent, have not only altered the operating methods of all industries, and enlarged tremendously our industrial field, but have given us an opportunity for work and for production that otherwise would not have existed; the great factories that manufacture electrical apparatus; the great and small electric lighting companies, like The New York Edison Company, employ hundreds and thousands of men, all of whom are doing productive work because Mr. Edison invented the incandescent lamp. Just think of the extent to which iron and copper and tungsten, and platinum, and coal are being mined for no other purpose than in order to supply the demand for material for the various industries which are based, as I have shown, on this little incandescent lamp of Mr. Edison, and think of the building material and the machinery that are produced to meet their needs!

We cannot conceive what our situation would be if the incandescent lamp had not been invented. But we can see that

the invention and its development into extensive light and power systems, through Mr. Edison largely—at any rate he was at the foundation of it—has led to the employment of millions of people and to added comfort and happiness for the whole human race. There has never been anything more fruitful or productive and out of which so much more has grown than that wonderful invention, made in the year 1879. As we have the eagle for the emblem of our country and England has the lion, I think that there could be no better emblem for industry as a whole than the incandescent lamp, which typifies one of the greatest things ever done for industry by the greatest inventor that ever lived, and typifies the way in which industries can be developed from small foundation, if that small foundation is of an essential character, having in it the basis for a tremendous and far-spread development in the interest of the human race. [Prolonged applause.]

STUYVESANT FISH

ECONOMY

Mr. Stuyvesant Fish has long been prominent as head and director of great corporations—railroad, banking and insurance. Born in New York in 1851, he has added to the honor of a family already distinguished by its public service. The address on "Economy" was given before the Louisville Board of Trade on January 25, 1906. Commenting on this address in 1922, Mr. Fish writes, "If I had time I would now add a comparison of the cost of the Federal Government, and of the Government of the State of New York and the city of New York, in 1906, with the overgrown figures of 1921." Certainly the arguments for economy are as timely now as then.

In order that we may clearly understand each other, permit me to define the word economy. The Century Dictionary derives it from the Greek word *oikonomia,* which meant "the management of a household or family, or of the State, the public revenue"; and in turn derives *oikonomia* from two other Greek words, *oikos,* a house, and *nomein,* to deal out, distribute, manage. Economy also means "the internal, and especially the pecuniary, management of any undertaking, corporation, State or the like"; and "the system of rules and regulations by which anything is managed"; and it is only latterly that the word has acquired the meaning of "thrifty and frugal housekeeping; management without loss or waste; frugality in expenditure; prudence and disposition to save."

Webster's dictionary gives the following synonyms:

Economy avoids all waste and extravagance, and applies money to the best advantage; *frugality* cuts off all indulgences, and proceeds on a system of rigid and habitual saving; *parsimony* is frugality carried to an extreme, involving meanness of spirit, and a sordid mode of living. *Economy* is a virtue, and

parsimony a vice. *Frugality* may lean to one or the other, according to the motives from which it springs.

The sense in which I shall use the word Economy is well defined in Edmund Burke's "Letters to a Noble Lord," written in 1796, where he says:

"It may be new to his Grace, but I beg leave to tell him that mere parsimony is not economy. It is separable in theory from it; and in fact it may not be a part of economy, according to circumstances. Expense, and great expense, may be an essential part of true economy. If parsimony were to be considered as one of the kinds of that virtue, there is, however, another and higher economy. Economy is a distributive virtue, and consists, not in saving, but in selection. Parsimony requires no providence, no sagacity, no power of combination, no comparison, no judgment. Mere instinct, and that not an instinct of the noblest kind, may produce the false economy in perfection. The other economy has larger views. It demands a discriminatory judgment and a firm, sagacious mind. It shuts one door to imprudent importunity, only to open another, and a wider, to unpresuming merit."

Burke might have gone further and quoted from the Book of Proverbs: "There is that scattereth and yet increaseth."

Do not imagine that I am going to weary you with an address on political economy, or to impose upon you a discussion of the tariff. I do wish, however, to call your attention to the lack of, and the necessity for, economy in the household, in the state, and in corporate management. It is now, in this era of unbounded prosperity, which is so especially marked at the South and in the West, and which, given good crops and peace, seems so sure to continue, that I wish to preach the higher economy.

1. Household Economy

As to the household, no one will question that our people are spendthrifts, earning money freely and wasting it to such an extent as to make it proverbial that what is thrown out of our kitchens would support a frugal people in almost any country of Europe. While we have in recent years become in no small

measure manufacturers, we are still essentially an agricultural people, producing from the soil more than we consume and exporting the surplus; hence any sum, however small, which on the average is saved by each citizen, redounds to the benefit of all by increasing our accumulated capital. During the bad times which followed 1893, I had occasion more than once to draw attention to the fact that we were then getting rich rapidly, because our people had then recently learnt frugality in the hard school of adversity, and were at that time saving. This daily saving by the people, however small it may be, amounts to an enormous sum annually. Whether our 85,000,000 of fellow countrymen save or waste it, it is hardly imaginable that they can save or waste less than five cents per capita per day. This would amount to $4,250,000 daily, and $1,551,250,000 yearly. While it is impossible to state exactly how much is at any given time being wasted or saved, it is to my mind just as clear that as a people we are to-day wasting, as it was in 1894, 1895 and 1896 that we were then saving. This is the first fact which I desire to emphasize, leaving it to the future, and the reasonable near future, to point the moral.

II. Public Economy

Turning now to our general, or public economy: No one can examine the appropriations made by Congress, by the State Legislatures, and by our municipal governments, without appreciating that there is in each a conspicuous and growing lack of economy. There are not only waste and extravagance in administration, and what is now commonly called "graft," which is a combination of bribery and larceny, but, what is economically worse, the laws are so framed as not to get the best use out of the taxes paid by the people. What we have to fear is not so much the magnitude of the appropriations as that our laws require that an uneconomical and therefore bad use be made of them.

By way of illustration, permit me to cite some figures from the recent report of my very good friend, Postmaster-General Cortelyou, on the department which, so far as existing laws admit, he is administering most admirably. The Postmaster-

General's report for 1905 shows a deficit of $14,572,584, against a similar deficit in the preceding year of $8,779,492.

Government free matter carried in the mails constituted full one-eighth of the entire weight carried, and involved a loss of nearly twenty millions of dollars. Had this been prepaid, the postage thereon would have far exceeded the deficiency. Regardless of any other consideration, this is bad economy, and for it the responsibility rests with the laws and not with their administration.

Rural free delivery cost $20,819,944, and the loss in rendering this service is safely and conservatively estimated at more than fifteen millions.

In the carriage of second-class matter—newspapers, etc.—at rates lower than other printed matter, which return to the Government from one-fifth to one-eighth, only, of the cost of rendering the service, there was a further loss which cannot be figured below twenty-seven million dollars.

The free delivery of newspapers in the county of publication costs the Government more than one million.

In these four items we find a loss exceeding sixty-three millions of dollars ($63,000,000) per annum. Is it surprising that, under laws which not only permit but require such waste of the public revenues, there is a deficit, and that the deficit should be growing rapidly?

Nor is it avoidable that under such methods of carrying on business, there have come to the surface, even in the administration of the Federal Government, which we had been disposed to look upon as honest and thorough, a condition of inefficiency and dishonesty in various branches, which, to say the least, calls for a halt. I am not one of those who, here at the South and to a Democratic audience, or elsewhere, would be disposed to criticize the Federal administration for this. On the contrary, Mr. Roosevelt's well-known character, and the vigor with which he has over and again taken up matters of this sort, is one of the most helpful, and by all means the most hopeful, consideration which we have for the future.

Let us also look into our fiscal system. We hold not only the largest stock of gold of any country in the world, and are, with the possible exception of South America, the largest pro-

ducer thereof, but our supply per capita, though somewhat smaller than that of France, is larger than that of Germany and very much larger than that of Great Britain. So also of silver. And when we come to consider the stock of money of all kinds—gold, silver and paper—we find that we have per capita about as much as France, half as much more as Germany and nearly twice as much as Great Britain. And yet we have within a month seen money lending in New York at one hundred per cent per annum. It is obvious that we make a very poor use of abundant means.

Here again the trouble is not in the administration of the laws, but in their being of themselves economically bad; and I could cite many other instances.

To the curious on this subject I would recommend reading Herbert Spencer's chapter on "The Sins of Legislators," which will be found in the later editions of his "Social Statics" under the general heading, "The Man vs. the State."

The Spanish War has entailed on us colonies and the duty of governing them and policing the sea with a great navy. With this there has arisen, and will remain, the constant danger of new foreign wars, which the experience of all other nations so situated warns us to expect. Moreover, any of the Latin American Republics may, under the extreme and growing interpretations which have of late been put upon the already overstrained Monroe Doctrine, involve us in a calamity of this sort at any time; for as Mr. McKinley did not, despite his honest efforts, keep us out of the Spanish War, it is safe to say that no President will in the future be able to guard us from war. In the words of Mr. Cleveland, "We are confronted with a condition, not a theory." All of which emphasizes the need of strictly watching and thoroughly reforming our public economy in all its branches—Federal, State and Municipal.

III. Corporate Economy

I need not repeat that the country is prospering and likely to so continue. While fully appreciating these facts, we cannot shut our eyes to the trouble that has been going on in the center of our financial system. Much has been said in the

press, not only in the West, but even in conservative Boston, which reminds us of the old fable of the quarrel which the various members of the human body had with the stomach, for after all, it is in Wall Street that securities are "digested." With most of what has been said in violent denunciation of anything and everything in Wall Street, you and I can have no sympathy, although on the other hand we must admit that much is wrong there. The situation may be illustrated by a rather unpleasant simile. Throughout all time men have had trouble with their digestive processes, until in our day much from which our fathers had ignorantly suffered as pain or inflammation in those parts, has been distinctly diagnosed as coming from the appendix vermiform, and modern surgery has in thousands of cases succeeded in safely removing that rudimentary and useless organ, to the great relief of the race. Having looked into the matter myself somewhat carefully of late, I beg to say to you in all seriousness that not only in the insurance companies, but in many other corporations, there is need of the advice, and probably of the knife of the trained surgeon. There is wrong in the management of many corporations, and it should be removed, cost what it may, for the benefit alike of the patient and of the community. Without pretending to any superior knowledge on the subject, but having given to it thought not only of late, but for years past with respect to corporations generally, I think that the root of the evil lies in too few men having undertaken to manage too many corporations; that in so doing they have perverted the powers granted under corporate characters, and in their hurry to do a vast business have in many cases done it ill.

While the evil applies to corporations generally throughout the whole country, my meaning can perhaps be best illustrated by taking the case of the three great life insurance companies of New York—the Mutual, the New York Life, and the Equitable. A year ago these three companies had, as shown in the "Directory of Directors," published by the Audit Company of New York, 92 trustees or directors who lived in New York. Of them one was a member of 73 boards; another of 58; another of 54; another of 49; another of 47; another of 43; and another of 41. And, to sum up, those ninety-two gentle-

men held 1,439 directorships in corporations which were sufficiently well known to be recorded in the directory above referred to.

I submit that the intention of the state in granting corporate charters was that the directors of each corporation should meet frequently, have full knowledge of its affairs, discuss them deliberately, and then exercise the best judgment of the whole body. That this can be and is done to-day is shown in a letter recently written by President Taylor, of the Connecticut Mutual Life Insurance Company, from which it appears that its board meet at least once a week, and more frequently when necessary, and that they have not delegated their powers to any committee, but that the board transact all business themselves, sitting as a committee of the whole. To which I can add my personal experience in a large National Bank and in a Railroad Company, where the same sound and law-abiding practice is followed, except that the bank directors meet twice a week and the railroad board held only eighteen meetings last year.

How, then, is the business of the other companies managed? Their charters provide substantially, and in general, literally, as follows:

"All the powers of the corporation shall be vested in a board of directors (or trustees), and shall be exercised by them and such officers and agents as they may appoint."

It goes without saying that the officers are required to report their acts, and are held to a very strict accountability; so also as to the individual agents. But the practice has arisen and is very generally followed of assuming that the insertion in such charters of the word "agents" has given to the board created thereby, the power to delegate to "Executive Committees" of their creation, all the powers which the law has vested in those boards and requires them to exercise, except on the rare occasions when such boards may be in session. To make matters worse, such boards meet at very rare intervals, quarterly or annually, chiefly, if not solely, to ratify and confirm the acts of their committees. Herein lies the worst of the evil, and it is my firm belief that if this shall be brought distinctly to the

attention of the courts it will be corrected, except in cases where the original charter, or articles of association, explicitly provide for the creation of an executive committee having such power.

Do not understand me as saying that corporate boards lack power to appoint committees or to delegate to them authority to act in particular instances, or even on particular classes of subjects, making full reports thereon; but I do say that with charters worded as above, I, for one, fail to see any power in the board to permanently abdicate the whole or any part of the discretionary powers vested by law in them to a committee of their creation.

I have pointed out briefly, and I trust, not unkindly, some of the evils which now affect for ill the economy of the household, of the state, and of the corporations. In each, we, who—as breadwinners, as taxpayers and as stockholders—provide the wherewithal, suffer because we have set others to rule over us without holding them to that strict accountability for the discharge of their trust, which the common law and common sense alike demand. Indeed, things have come to such a pass that in certain quarters it is now considered indecorous and ill-bred for us, the many, to even discuss, much less to correct, the shortcomings of the elect few. Such was neither the theory nor the practice on which our forefathers ordered the economy of this republic.

Without going the length of those who, from motives of personal vanity or of personal gain, are so freely preaching and writing vain doctrine, let me ask you who have so long stood for sound doctrine, to join with all our intelligent and conservative fellow countrymen in demanding sound, patient and discriminating economy.

HALEY FISKE

FIFTY YEARS OF LIFE INSURANCE

Haley Fiske was born in New Brunswick, New Jersey, in 1852, and became president of the Metropolitan Life Insurance Company in 1919. The following address was given before the Annual Meeting of the Association of Life Insurance Presidents, December 4, 1925.

When one compares the amount of life insurance in force, the plans of insurance, the policy provisions, the insurance laws, of 1874 with those of 1924, one is tempted to say that the history of life insurance in the United States and Canada is contained in the half century. At the end of 1874 there were less than eight hundred and fifty thousand policies in force; 1924 closed with over ninety-two millions. The amount of insurance in force increased from two billions to sixty-seven billions, the business written in the respective years from one hundred and fifty thousand policies to eighteen and a quarter millions, for from three hundred and sixty-two millions of insurance to fourteen and a half billions; the premium receipts from ninety-two and a quarter millions to two and a quarter billions; the assets from four hundred millions to over eleven billions; the payments to policyholders from sixty-eight millions to one and a quarter billions. These figures exclude fraternal and assessment insurance, which had its great start in the first decade of the half century period and which has increased from one and a half billions in 1885 to eleven billions at the end of last year.

Fifty years ago there were in use twenty plans of insurance; to-day, one company uses over a hundred forms of policies.

A whole volume of life insurance history is contained in the comparison of policy provisions at the beginning and end of the fifty years. Perhaps I can best summarize the progress of

life insurance in its practical relations to the public by one illustration.

My own first insurance was in the Mutual Life nearly fifty years ago. It is interesting to contrast the provisions of my old policy with those of the same plan as now issued by the Mutual. A claim is now payable immediately, instead of requiring 60 days' notice. There are no travel restrictions; then, permit had to be obtained for travel in certain regions. Then, occupation was restricted; now, it is not after the first year, and, even as to the first year, very few restrictions. Then, suicide, except as result of disease or accident, exempted liability; there is now no exemption after the first year. Then, forfeiture for non-payment of premiums except for paid-up insurance after three years; now, after three years there is automatic, continued term insurance with options of cash and paid-up. Then, no basis of reserve expressed; now reserve on American experience table with three per cent interest. Then, if claim were refused, the claimant had to give notice of the Court in which he would bring suit; now, no such provision. Then, a policy charge of a dollar; now none.

Now there are concessions, then absent, for dividends after the second premium; privilege to exchange plan without medical examination; incontestability after one year's persistence. No avoidance for misstatement of age. A copy of the application is attached to the policy, and the statements are made representations, not warranties. In the old days, warranties were strictly construed and gave rise to much litigation of which Courts became increasingly impatient. Other present concessions are loan values; privilege of reinstatement within five years after lapse; and options of payment of claims either in lump sum, or by installments, or by annuities, or by deposit with the company at interest.

These improvements are of course common now to all companies.

The half century began under dark skies and threatening clouds which developed into a long and fierce storm. The panic of 1873 was a crash which involved all forms of investments and cut down values to an appalling extent. Real estate values were cut in two with consequent impairment of mortgages. In

1870 forty-four per cent of the assets of life insurance companies were on real estate mortgages. There was no doubt bad management. There was no doubt ignorance which led to reserving on assumed high rates of interest. It was not only the life insurance business that suffered, but all business. The railway corporations were hit as badly as insurance companies. The period was one of economic readjustment after the Civil War. About seventy life insurance companies out of a hundred failed. The income of the companies dropped over a third. It has been said that policyholders lost thirty-five millions of dollars. Life insurance by reserve companies had a bad name. New insurance written in 1870 was 588 millions, in 1879, 173 millions. The insurance in force in 1879 was less than in 1870, dropping from two billions to less than a billion and a half. Recovery began in 1879, which showed an increase of new business. The next year showed an increase of business in force; 1881 showed an increase in income. But it was not until 1885 that the insurance in force passed the amount in 1873. Assessment and fraternal insurance came into prominence and, in 1889, amounted to two and three-quarter billions of insurance in force, against a little over three and a half billions in the reserve companies.

Thus, one may say that the history of life insurance is comprised in the last forty years. The amount in force was doubled in seven years, was doubled again in nine years, was doubled again in ten years, redoubled in eight years, again in six years. The forty years have seen the life insurance in force multiplied thirty-three times.

Public sentiment about the system of life insurance, irrespective of its faults or success of operation, has changed from repugnance to a feeling that it is a kind of universal solvent of economic and social problems. Thirty years ago I had to meet a charge, in a legislative hearing, that life insurance was immoral and a form of gambling. It was denounced by a large Christian denomination. Agents were eager to get approval from ministers of religion. I can remember when extracts from sermons of Beecher and Talmage advising life insurance were widely circulated. Only twenty years ago I had to argue on the witness stand in the Armstrong investigation that Indus-

trial Insurance was not a gamble. No business in the world is to-day held in higher respect in the United States of America.

The half century of life insurance has witnessed a constant progress of evolution and, in some respects, of revolution. It was in 1875 that the Convention of State Commissioners of Insurance adopted a uniform blank for reports which, for the first time, required a perfect balance sheet. Since 1871 this convention has met annually and the business owes much to its deliberation and action. There has been a great improvement in its membership. There are no longer Commissioners who use their office as politicians or for company exploitation. The Commissioners to-day are friends of life insurance and protectors of and coöperators with honest insurance management.

It was in 1889 that the Actuarial Society of America was organized and in the same year the Association of Medical Directors. It would be impossible to exaggerate the good effect on the system and operation of life insurance of these two societies and similar societies since organized, both as to their separate activities and in their coöperative work. In 1913 the Association of Life Insurance Counsel was formed and its career has likewise been useful to the business in its learned papers and discussions on the problems of insurance practice in their relations to statutes and court decisions.

The foresight and wisdom of Paul Morton, when President of the Equitable, has been more than justified in his proposal to form the Association of Life Insurance Presidents. Its work has been and is extraordinary. It started with a few companies. Its wonderful organization by Robert Lynn Cox, carried on, since his resignation, by George T. Wight, has brought into membership most of the large life insurance companies that are eligible, and it now has fifty-eight member companies. Its work is to gather information about proposed and pending legislation, submitting it to the scrutiny of actuaries and counsel and giving advice to legislative committees as to its merits and demerits; and to distribute the information to the constituent members and to the press. It keeps up a large library of statistical information of great value. Its annual meetings, of which this is one, have been the occasion of the reading of

papers of great importance and interest on legislative, social and welfare economics, and its meetings have been notable through the presence of distinguished statesmen, experts in economics and in public health whose own activities lay outside of the life insurance business. In its work about legislation it employs no lobbyists. Lawyers and actuaries from the head office in New York make arguments before legislative committees and insurance officials, and submit briefs and suggestions. Individual companies seldom appear in connection with legislation. The day of insurance lobbyists has long since passed; and, with them, attempts at strike legislation. I have no desire to recall the sad old days of attack and defense, the jobs set up against the companies, the special legislation sought by companies, often undisclosed as to its effect. The testimony before the Armstrong Committee revealed a part of the story. Industrial insurance, which it was my duty to represent, had no part in this work, although for many years the object of fierce attack, sometimes honest but usually corrupt. Legislative attacks on Industrial insurance were defeated by appeals to policyholders and public opinion. It is all over and insurance official life is now worth living! The Presidents' Association and the American Life Convention, which is a similar organization representing other companies, are alert and effective, but, above all, honest and honorable.

I have mentioned the Armstrong Investigation. There is no need to tell of its origin or the details of its work or of the facts and situations it revealed. Perhaps it is enough to say that it resulted in the best insurance legislation the world has known; that it purified the business of abuses and set it forward as the cleanest, best organized and operated business in public relations that exists to-day. But one more thing ought to be said; and that is that, in the conduct of the investigation and the resulting legislation, the business owes a debt it can never repay to Charles Evans Hughes. Mr. McCall told me not long before he died that Mr. Hughes had been eminently fair; and there could be no better witness quoted. Industrial insurance especially is grateful for the judicial spirit Mr. Hughes showed when the influences around him tempted him to the endeavor to destroy it. I can never forget his painstak-

ing study and his fairmindedness. And surely Ordinary Insurance (that is the insurance on annual, semi-annual and quarterly premiums) can now look back with gratitude on measures which at the time seemed harsh—the destruction of Tontine or deferred dividend insurance, the curb on assessment insurance, the limitation of expense and the temporary limitation of yearly business, gradually modified, and, now that the need has passed, practically put under the supervision of the Superintendent of Insurance, the restrictions on investments, the ending of personal official interest in investments, the provisions in 1909 for liquidation in place of the early scandalous experience in receiverships, the standardization of policy provisions, the differentiation of participating and non-participating insurance, the standards of valuation.

Generally speaking, the trend of legislation during the half century has been progressively good; in fact, the period has witnessed most of the regulatory legislation. It was in 1876 that notices of premium paying were first required. The first non-forfeiture law was passed in Massachusetts in 1861; and New York followed in 1879. Incontestability provisions date from 1879. The first law for cash surrender was passed in 1880.

On the general subject of investment, papers have been read at previous annual meetings of the Association which have set them forth fully. It is, therefore, only necessary to remark that the life insurance companies have pursued the plan of meeting the needs of the public, now specializing in railways when the country needed them, now in mortgages to meet housing demands, now in farm mortgages when agriculture required help, now in public utilities—street railways, gas, water and, lately, in electric development. And always a resource to meet the needs of Government, Federal, State, County and Municipal.

It was in the very panic period described that John F. Dryden had the courage to make a start of what is now called Industrial insurance, and in 1875 founded what is now the great Prudential Insurance Company. It was when the Metropolitan was desperately engaged in weathering the storm of that decade that Joseph F. Knapp of the Metropolitan followed Mr. Dryden to England and studied the business at first hand in the London Prudential. But not Dr. Dryden or his coadjutor, Dr. Ward;

not Mr. Knapp or his co-worker, Mr. Hegeman; or Mr. Rhodes of the John Hancock, dreamed of the future of the business. Industrial insurance is the outstanding achievement of the half century. It met with every sort of opposition at the start, legislative and official. More than one Commissioner of Insurance denounced it. Investigation after investigation pursued it. The press abused it. The old line companies and their agents ridiculed it. It has not only earned its place in the sun. It has better than conquered its enemies—it has convinced them. Perhaps the one Insurance Commissioner who constantly stood its friend was John A. McCall, of New York, whose faith and friendship prevented disaster to the Metropolitan. Afterward while President of the New York Life, he was a director of the Metropolitan. The friendship of these two companies has been historic and never closer than now under Darwin P. Kingsley and Thomas A. Buckner and the younger McCall. It was John A. McCall, in his address before the Milwaukee Convention of Insurance Commissioners in 1898, who praised the record and foretold the future of Industrial insurance, and first gave it the credit, now everywhere acknowledged, that it has been the great insurance educator, of immense benefit to what is called old line Ordinary insurance. Need I say more than that this business, begun nearly fifty years ago, will end this year with probably seventy-four millions of policies in force for thirteen billions of insurance!

Group insurance is another prominent feature of the period under discussion. Started by the Equitable in 1911, it is now practiced by many companies and ended last year with three and a quarter billions in force. It is of double importance. It covers with insurance three millions of working people. That is a blessing; but perhaps even more important is the coöperation it affords for mutual benefit of employer and employee and the improvement of the relations and the better understanding which it creates between capital and labor. Labor looked askance for awhile; but last year its representatives procured legislation permitting life insurance companies to issue Group Life policies to labor unions, and many of these unions have become so insured in various companies represented in this Association.

The half century has witnessed the entrance of Governments into the business and some of them have made insurance compulsory. Germany and Great Britain have been the leaders. And during the late War our Congress provided Government insurance at net rates for our soldiers and sailors. At one time the amount in force is believed to have reached nearly forty billions of dollars. If now the amount has fallen to less than three billions, this is only one more piece of evidence that insurance must have agents to introduce and keep it in force. The companies made no effort to twist Government insurance to themselves, but, on the contrary, advised men in the service to take it out and continue it; but doubtless many dropped the insurance because they preferred to place their own insurance or had not been sufficiently educated as to recognize its value. This action by Congress was of great benefit to the insurance company, by advising the need of insurance to millions of uninsured and, through fixing the amount at $10,000, by educating the insured to the insufficient amount which they were previously carrying.

The agency system, of which we have just been reminded, has greatly changed. The agent of 40 or 50 years ago was often a man who had failed in other business. Gradually the general agency business grew up. Competent men had general offices and were in close touch with the management of the companies; they employed sub-agents, appointed, educated, helped and dismissed. The general agents were important people in the community and kept in touch not only with their home offices but with their policyholders. There are quite a number of these remaining in the different companies; but, as a system, it is passing. The former sub-agents are now agents. Renewals, which had a large part in the earnings of the general agents and kept them in touch with policyholders, are now often in the care of cashiers. I suppose one result of the change has been to add to the dignity and importance of the individual agent. Many companies do not employ part-time agents. Life insurance agency is becoming a profession. It is better paid. In 1898, the late Mr. McCall said the average earnings of over three quarters of his agents were about $1,000 a year. In 1898, the Industrial agent averaged perhaps $10 a week.

The Industrial agent, in at least one company, now earns on the average in Industrial and Ordinary, nearly $3,000 a year. He is a salaried man with extra compensation for production. The New York Life Insurance Company has a system by which an agent who is competent and persistent earns an annuity; perhaps other companies have similar or other methods by which talent and persistence are rewarded, either by renewal interest or otherwise. Company loyalty is now the rule. The old days of "twisting" of agents are over. It was the Industrial insurance companies which set the right example and showed not only the wrong but the inexpediency of the practice of stealing agents from rivals. It was almost immediately following an address on this subject by an Industrial company Vice-President before a Convention of Life Underwriters that the "Big Three" were brought into agreement on the subject. It is all to the good to the companies, to the public, to themselves, that a life insurance agent is a self-respecting, professional man who has at heart loyalty to his company and fidelity to the insured. In 1883, the first Association of Life Underwriters was formed and the number grew. In 1890, the National Association was formed. The work of these Associations has improved the morale, has promoted friendship between rivals, has elevated the standards of agency, has helped the companies.

The "Big Three"! How well we remember the awe the expression inspired in the old days. And they were personified. It was not the Equitable, the Mutual and the New York—it was Hyde, McCurdy and Beers and, later, McCall. They *were* the companies. They dominated the business. They were the representatives of life insurance to the public, the Legislatures, the Commissioners. The days of personal domination are past. Doubtless there are giants now comparable with them; but they do not dominate. The business of the companies is too large, its ramifications too numerous, its complexities too great. Not that personality is altogether hidden. When we think of the New York Life, we still think of its President: but of a President Kingsley with wide vision, a statesmanlike mind, an orator, an author whose abilities have been at the service of the public, a defender of railway invest-

ment interests, a President of the New York State Chamber of Commerce, the highest office in the gift of the business community. With the Mutual we think of Mr. Peabody, an expert in law, finance, railroads and real estate, a guardian of assets. With the Equitable, we think of President Day as bringing to bear his acute legal mind on insurance and financial problems; and his great service to the company and the public of bringing about and carrying through the mutualization of his company. In those old days of the "Big Three," the newcomers, the "Big Two," had the respect of the three, but the public eye was not attracted. Only with their own people at first, Dryden and Ward, Knapp and Hegeman were the personifications of their companies. Public recognition waited, but it came. And now we see in Mr. Duffield a successor to Senator Dryden in insurance and, likely enough, in the United States Senate. We see in Frederick H. Ecker a financier upon whom Wall Street looks with admiration, a railroad expert whom the country looks to for counsel, an expert in real estate respected by the New York investors; the President of the Chamber of Commerce, as Mr. Kingsley was before him; but in each case not only the talents but these activities themselves are all brought to the service of the policyholders in the care of the assets and other interests of their respective companies.

And indeed the life insurance business has taken on wider and deeper relations to the public. The enormous assets make it responsible to the public to safeguard investments in which the public has so large a share, and the modern officer must be fit for this responsibility and perform it. The extraordinary number of policyholders, probably not far from half the population, and in Eastern cities a much larger proportion, put upon the company and its officers a responsibility as to public health and welfare. We see the companies attacking disease, offering diagnosis and advice to individuals, supplying them with health literature, coöperating with Government and health and school officials, reaching out to give education to the people and even to the children, in preventive medicine. The companies' official staff must now comprise not only insurance men but financial experts, social students, physicians, specialists in health, in welfare, in education, in publicity. It is not for

advertising that one company nurses free of charge its sick poor by two and a half million yearly visits, distributes literature on prevention and cure of sickness from practically every known disease to the extent of forty millions of pamphlets a year, broadcasts health talks, teaches physical culture by radio; publishes, in seventeen millions of copies of periodicals, its monthly talks on health, with no reference to insurance. It is the fulfillment of responsibility to one-sixth of the population covered by its policies. It is concern for public health.

It teaches Governments by experiments, such as reducing tuberculosis mortality in one city from 120 to 38 per 100,000; and, in another, infantile mortality in the first year of life from 300 to 96 per 1,000. It demonstrates cure from tuberculosis in a sanatorium to the extent of 84 per cent of its discharges. Its commission on public health surveyed the health agencies of the country; its commission on influenza made a discovery which greatly reduces mortality from a common type of pneumonia. It is about to undertake, through a commission, intensive study into the causes, prevention and possible cure of common colds. Common colds are said by physicians to be the most prevalent and serious menace to the health of the world, often causing more discomfort, inconvenience and danger than any other one ailment. The real cause has never been discovered and the problem is to find it out and prevent this form of sickness. It prays for the same work by other companies. It rejoices in the work they already do. It demonstrates that it pays, and the expenditure is justified in dollars and cents. It shows an extension of policyholders' average life in a period of eleven years, of eight years, as compared with four and a quarter years in the general population. It saves in death claims more than it pays for health extension. Its Industrial business gives it special opportunity and responsibility which Ordinary companies do not have. We rejoice that Ordinary companies—insurance companies generally—are doing so much for the financial and health advantage of the people.

The half century has been marked by the conversion of many stock life insurance companies into mutual companies, the outstanding instances being the Equitable, the Prudential and the Metropolitan. Millions of assets and billions of insur-

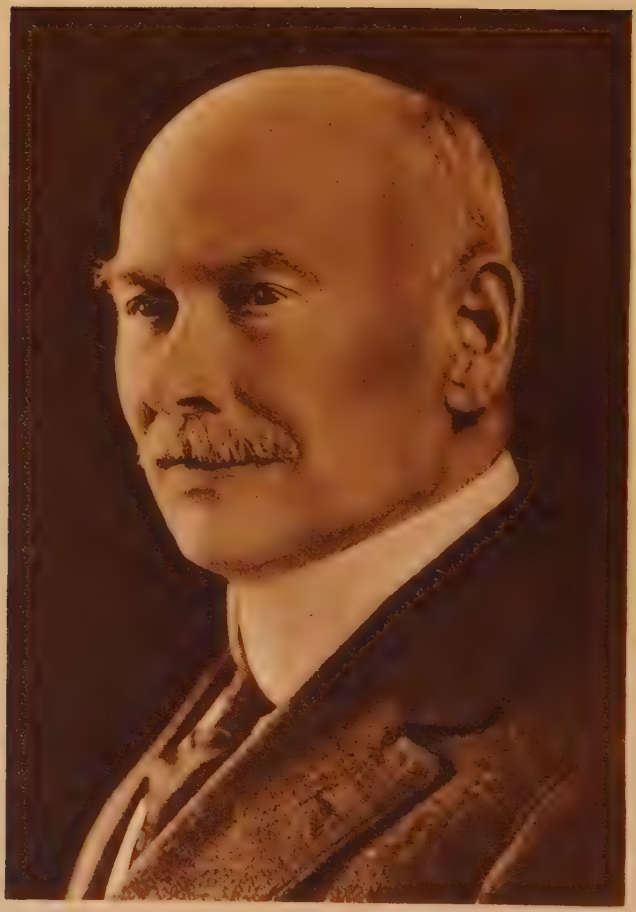
ance have been thus transferred to the ownership of policyholders. The serious question confronts insurance company management looking to the future, whether, with companies of large assets which confine themselves to life insurance, it is safe, regarding the interests of the policyholders, to leave the companies in the control of stock, with all the possible dangers that come from stock ownership in few hands, in view of the possibility that, by the death of the conscientious owners, stock control of the companies and their assets should pass into the hands of speculators and exploiters.

At the close of the half century, what a vista opens! Who can predict along how many avenues life insurance will march to the public good? Insurance against death, endowment or savings insurance, mortgage redemption insurance, sickness and accident insurance, both in money compensation and keeping life policies in force, corporation insurance on employers, group insurance on employees, old-age pensions. But is there any ill or contingency in life our business will not cover? Shall it be a security on partial payments for merchandise or bank or other loans? Shall it be rewards for public and private service? Shall it be unemployment? Shall it be the wide extension of old-age pensions? The movement for pensions has begun; agitation in England has been going on for years. We have made a beginning. American sentiment will not leave this to Government. Life insurance companies must prepare to do the business. Working people and clerical employees have no such pressing unsupplied need. The specter before wage and salaried men and women are death, sickness and accident, unemployment and dependent old age. It is the true function of life insurance to banish these specters. Life insurance now cares for death and illness and accident. The time will come when Legislatures will permit the companies to write unemployment insurance. Companies do not have to wait to provide support in old age. Individuals can buy annuities. In the United States the companies have not pushed annuities as they should have done. It requires an educational campaign. The people are not informed of the immense advantage of making sure their protection against improvidence in later life. But take corporations with numerous wage-earners and

salaried men and women. Do they not owe duties beyond payment of compensation? Is the compensation sufficient to provide for sickness and old age? Group insurance is proving the willingness of employers to engage in welfare work and furnish health and accident as well as life insurance. Can they not be persuaded to provide pensions? Some corporations have pension plans. Are they actuarially sound? Have there not been some unfortunate experiences? Life insurance companies are in the position to provide for annuities in groups that will be financially safe and that will enable corporations to reward persistence and faithful service by banishing care. The same things may be said as to employees of Federal, State and City Governments. It is known that some pension systems in use for years are unsound and in a precarious condition. Salaried employees are mostly underpaid; even if not, any margin for future security is small. Let Governments know that life insurance companies are anxious to serve them. Take the whole system out of political incompetence. Let the servants of Government who are the servants of the public feel that the future of themselves and their families is free from anxiety. How better can we spread contentment among all classes of people and put an end to popular discontent?

Whatever this future work shall be, it will be done by companies with high ideals, with deep sense of responsibility, with fraternal feelings toward each other; with agency made a profession, with aims for public welfare, for reaching the whole population regardless of race or condition of health, for a steady purpose to reduce morbidity and mortality, for reduction of rates and increase of dividends to policyholders.

The days of competition are not over. But instead of the old recrimination, personal attacks by press and cartoon, jealousy, mutual distrust, we shall have, even closer than to-day, a true corporate brotherhood, coöperation for the public good, such as is symbolized by this Association which has done me the honor of inviting me to address it.



ELBERT H. GARY

ELBERT HENRY GARY

LABOR

Mr. Elbert Henry Gary, as Chairman and Executive Officer of the U. S. Steel Corporation, holds what is probably the most important executive position in modern industry. Born on his father's farm near Wheaton, Ill., he graduated from the law school of the University of Chicago in 1867 and was for twenty-five years in the general practice of law, from which he retired to become President of the Federal Steel Co. Since then he has been identified with the great steel corporation of which he is now the head.

Judge Gary evidently believes that there is much in the business of great corporations which is open to public discussion. In a series of thoughtful addresses on different occasions he has spoken on many of the great problems of capital, labor and management. The address "Labor" was given at Trinity College, Hartford, Conn., June 23, 1919.

It is not yet fully realized what has happened to the world during the last five years; and in a much less degree can it be conceived what will occur during the next like period.

We know that in nearly every part of the globe the people are passing through a transitional stage which is uncertain and which presents new and difficult problems of great consequence. It is a time of suspense and apprehension.

We have been living in an atmosphere of disorder and devastation, as opposed to order and preservation; of deliberate, successful effort to utilize all the elements of human knowledge, skill and energy in the destruction of life and property, often in disregard of the laws of God and man. While it is impossible to measure the full effect of these conditions upon the human mind and disposition, it is apparent that in many cases it is degenerating and serious.

The means of personal communication have reached the point

where practically the whole world is promptly informed of the actions and thoughts of the people of the different parts. Consequently the attitude of the inhabitants of one location may have an influence, good or bad, upon those who abide in other places; and therefore the responsibilities of all are now greater than ever before.

We are entering upon an era of readjustment and reconstruction. Many problems of vital interest affecting the future of the human race are presented for consideration as the result of the War, some of them new and others arising from the application of old principles to new conditions; and it is essential that we build on solid foundations for future developments. It is sufficient at this time to say that there is a feeling of anxiety which disturbs the minds of human beings generally; and it is of the highest importance that conclusions shall be reached which will aid in restoring confidence and serenity; decisions based on principles of righteousness and justice. It is probable the feeling of unrest and dissatisfaction, which has been extensively advertised, has been greatly exaggerated, especially as to the numbers affected; nevertheless in other countries to a large extent, and in this country to a less degree, there exists a belief that radical changes in Government control and administration are necessary. Agitation and propaganda, which are vicious and participated in by those who are totally unworthy, have had some influence even upon well-disposed persons. This is largely because of the abnormal conditions of mind, created by the military cataclysm through which we have been passing during the last four years or more.

It is the solemn duty of every individual, every aggregation of individuals, to assist in bringing about stable conditions which are healthful—morally, socially and economically; and if this shall be the effort of all it need not be feared there will be experienced the overthrow of civilization, the disregard of freedom and liberty or the protection of life and property, which occasionally an ill-advised or evil-intentioned speaker or writer proclaims is now threatening the world.

And there are momentous questions raised even by high-minded individuals, which demand our attention. In the discussions of the time, public and private, are contained what are

generally designated the labor questions. While some of them are more or less delicate and are difficult in treatment because of misconception of the facts and circumstances in particular instances, still I think there should be frank and full reference to and analysis of the underlying principles which pertain to this subject. The comments which will be made represent views which are entirely personal.

In referring to labor one naturally inquires what is meant by the term and whom it includes. In a comprehensive sense labor is performed by nearly every one in sound condition. Even physical labor is a large part of the daily work of the vast majority of individuals. The rates of compensation do not determine who are laborers, for they differ materially, depending upon circumstances. Labor is not confined to physical activity, but also includes mental exertion. The extent of effort or the hours engaged will not furnish a basis for determination; the possessor of wealth, or the one in control of its use, frequently, if not generally, devotes more hours daily to his business than the lowest paid and least competent of workmen; the capitalist usually works and the hand laborer, to a greater or less extent, not uncommonly has capital.

There is no standard for drawing an exact line between labor and capital. If one will call to mind the different kinds of business and consider carefully and in detail the pertinent facts applicable, these observations will be patent.

In the discussion of this matter, for the moment, the laborer may be referred to as covering both men and women whose principal work is physical, who require no special literary qualifications, or skill derived from long experience, and are often designated as wage-earners or workmen. They are the ones who are relied upon by the reckless, iniquitous, self-appointed disturbers of peace to assist in movements to override law and order, for it is assumed they are most easily persuaded.

Fortunately, the large majority of wage-earners cannot be influenced by considerations that are base or unreasonable. This is especially true in the United States.

It may be useful to bear in mind that in trying to arrive at a wise and just conclusion concerning the rights of the workmen the interests of four general groups must be considered,

viz: Labor, capital or employer, the consumer, and that part of the general public not included in the divisions especially mentioned. None of these should be overlooked, each must be fully protected within reason and justice. When something is done to increase or decrease the advantages of one of these groups some or all of the others may be correspondingly concerned, particularly if it involves pecuniary consideration; for instance, if what is proposed relates to the rate of compensation to the workmen, or anything bearing upon the cost of production.

Employer and employee must both be considered at all times and each should be adequately and fairly rewarded for his contribution in money or work to a given enterprise, as otherwise the incentive for investment or effort would be diminished, if not entirely removed. A nation whose economic resources are not utilized to the best advantage and to the full extent of capability cannot be expected to progress in accordance with its opportunities in the legitimate attempt to hold its position in the onward stride of nations.

If the return on capital invested is not reasonable it will be withdrawn or diminished, or, at least, extensions will not be made; and in that case employment will be reduced. If the workers are not properly treated then capital will suffer either by the retirement of the workmen or indifference to duty. Each is equally dependent upon the other for the full measure of success. The capitalist can, if necessary, to a limited extent, perform the various tasks pertaining to his business and perhaps thus supply the necessities of life; the laborer, without any capital, resulting from work or otherwise, would find it more difficult to supply his necessities. Each one of these groups, for self-protection, must cultivate the friendship and study the interests of the other.

Assuming that the pecuniary conditions of the capitalist and laborer are established on a basis of justice as between themselves, the next consideration is the relationship between these two combined and the consumer. If the latter could be left out of consideration then there need be no difficulty or difference between employer and employee concerning compensation or other advantages, for whatever was added to the profit of

either could be charged to the consumer by increasing the selling prices of the output. I am not discussing relative prices or amounts; that must always be based, more or less, upon existing conditions, such as those relating to supply and demand, as well as the risks involved, the nature of the employment, the results achieved, *et cetera*.

The three groups are intimately connected. Whenever labor receives increases in wages, or other pecuniary advantages, the amount must be charged to and paid by the consumer, provided capital is not receiving more than it is entitled to receive. Consequently the question of selling prices or wages in many cases practically relates only to the laborer and the consumer. In estimating the cost of production from the raw to the finished material it should be borne in mind that 85 or 90 per cent of the total is confined to the sum paid for labor. If capital or labor is receiving a larger return than it ought to have the excess is provided by the consumer in paying improper prices. There should always be maintained a fair and reasonable equilibrium, taking into account all the circumstances.

And in discussing the rights of the consumer it must not be overlooked that the capitalists and the laborers are consumers as well as the general public; and therefore that when the capitalist, the laborer or the general public is seeking any advance in rates or returns which adds to the cost of production or delivery of commodities the one who urges the increase may be proposing to add to selling prices and to the prevailing cost of living. A man may be demanding a supposed benefit to himself when in fact the total net result will be a personal disadvantage.

Also, when we consider that the three groups named are closely connected we cannot overlook the most important fact that the effort of anyone to advance wages or prices with resulting costs of production, may be simply a step in adding to the cost of living and consequently a higher standard of general prices with a relatively lower value of the standard dollar.

If we would have a stable, reasonable standard of values, we must, so far as proper and practicable, arrive at and maintain a correct relation between the different groups already particularly referred to. The Government could perhaps endeavor to

determine and regulate the respective interests and rights of each, but coupled with the thought there are immediately conceived complicated and doubtful questions which would make the suggestion appear impracticable. When proposals of this character have been made there have appeared objections by both employers and employees. This is not the time or place for debate upon that subject.

We come now directly to the treatment of labor, which is the principal topic of this discourse. In the past it is doubtful if the workingman throughout the world received his just deserts. In the long ago he was designated the servant of a master and even the laws were framed for the undue benefit of the latter. This was more noticeable in some countries than in others. Possibly the attitude of the so-called servant was sometimes unreasonable and provoked hostility, but, if so, in the opinion of the considerate person of the present day, this furnished no excuse for retaliatory or unfair treatment on the part of the employer.

Fortunately for all mankind, employers and employees as a rule now entertain a more enlightened view of the relationship between them; and because of the practical demonstrations of this fact there is comparatively little likelihood of disturbances inimical to business progress and composure. Agitators, frequently influenced by motives of cupidity, with selfish and unscrupulous designs, regardless of the public good, will bring about temporary disorder, but I firmly believe that if the employers generally in the treatment of their employees are governed by honorable, intelligent and liberal policies there will be no considerable danger of disregard of law or of interference with the orderly progress of human enterprise. Wise, just, considerate treatment by an individual, or an aggregation of individuals, toward others will result in reciprocity and cooperation. Accomplishment by force in any form must give way to reason and conciliation. This is not idealistic; it is practical common sense. The Golden Rule, more and more, should and will be practiced in everyday economic life.

In considering the relationship between employers and employees the welfare of the latter is of the highest importance, not alone because it is right, though that is reason enough, but

also because it is for the benefit of the employers themselves. These groups are associated for mutual profit. They succeed or fail together. Each has obligations and responsibilities. They are not and should not be considered partners in the sense of being entitled to the control of the business in question or to participate in the return on the capital invested, except to the extent of contribution by each to such capital, for otherwise one would share in benefits without sharing the hazards of investment. Prospective profits furnish the incentive to embark in enterprise and to risk capital. To the extent this is removed or hampered to a corresponding degree will capital be withheld or diverted and economic activity diminished.

But there are many things the employee is justly entitled to. There is due him fair and reasonable compensation, depending upon all the circumstances surrounding the employment. The times, places, services, and results of operation are important to be considered. Necessarily and properly the question of supply and demand is, and always will be a factor in determining prices of labor, as it is in dealing with commodities. This is elementary and healthy; but there are other things of equal importance. When there is a well grounded doubt in regard to wage rates it should be resolved in favor of the employee.

Of equal consequence are the safety and health, moral, mental and physical, of the employee, and so far as practicable, his family, if he has any. Safety appliances, the best and most modern, should be installed and maintained in every line of employment which presents dangers to the person. Medical, surgical, and hospital facilities should be adequate. Sanitary arrangements should be as near perfect as business conditions permit. Approved systems for voluntary relief in case of accident, and pensions in case of old age or other disability, should be in force. Habitable working quarters and homes, vegetable and flower gardens, schools, churches, parks, wholesome amusements and exercises, should be provided; and in fact everything practicable in the management of business affairs, from the highest sense of propriety and obligation should be available. In times of great temporary stress the employee or his family ought not to be permitted to suffer for

lack of the necessities of life. It pays big, in dollars and cents, for the employer to maintain working conditions which are beneficial to the health and the disposition of the employee.

While it is not the purpose of this address to discuss the temperance question, I venture to remark in passing, that it is decidedly for the interest of the laboring man, and all others for that matter, whether they work with their brains or hands, or both, to abstain from the use of alcoholic stimulants. They will be more successful in life, financially and otherwise; better citizens, morally and mentally; of higher standing and greater influence; more contented and happier. Temperance means fewer hospitals, almshouses and prisons; less suffering and misery.

The workmen ought in some form to be offered opportunity to invest on favorable terms in the business inaugurated by the employer. This encourages thoughtful attention and endeavor to economize and save. It makes the wage-earner an actual partner in the business of the concern with which he is associated; a real capitalist. Many of the wage-earners have heretofore become property owners, owning the houses in which, with their families, they reside. Some are the holders of interest bearing securities. The number of this character of investors is increasing. They have as keen a desire to see the institutions of this country protected as those who have greater riches, and they may be relied upon to lend their influence and their votes in favor of the protection of property and person. Opportunity must be given to the workmen to increase their pecuniary holdings so far as practicable. To this end I believe the employers will do their part.

Every employee should have the chance to progress from one position to another depending upon his merits. The average workman does not wish to remain in the lower grades of employment or to bring to this level others filling better positions. He desires full and fair opportunity to occupy higher and still higher places, based on efficiency and faithfulness. This he is entitled to and it must be accorded him.

Whenever we find the families of manufacturing workmen living in clean houses, surrounded by beautiful and thrifty gardens, together with the privileges of good schools and satisfac-

tory churches, we may be certain the shops and mills are well managed and maintained in good order. What is here advocated applies more particularly to large manufacturing concerns; but the ideas should extend to every line of employment. A cheerful, contented workman is a consolation and a valuable asset to the employer and to the State. He is essential to continuous prosperity. It is the recognized duty of the employer of to-day, as it is his pleasure, generally speaking at least, to do his part in securing this kind of labor.

We may not expect perfection in economic enterprise and management; perhaps we shall not see universal, uninterrupted tranquillity, even in this highly civilized, progressive and prosperous country; but we shall not witness demoralization, revolution or retrogradation.

Those who claim that large numbers of workmen in this country could be induced to participate in any attempt to override law or order misjudge and underrate them. The great majority are opposed; and of this majority there are in control the young men and the young women; the pride and the security of the nation.

During the recent stupendous military conflict there were in the employ of one large corporation and its subsidiaries about 300,000 wage-earners. The greater part were foreign born; thousands upon thousands of them from central countries of Europe. They were appreciative of the disposition of their employers to treat them justly and in accordance with high standards of business principles. They were efficient, faithful and loyal. The manufacturing works were maintained in continuous operation throughout the War and supplied a large and important part of the material needed for the military necessities of the United States and its associates. These workers subscribed liberally to the Liberty Loans and many of them contributed to the war relief campaigns. Here was a magnificent exhibition of reciprocal sentiment and industrial coöperation. It was a demonstration that labor in this country is intelligent and honest in thought and performance; and that it may be depended upon to actively assist in the maintenance of good government.

The labor question at present is engrossing the attention of

students and will continue to do so with predominant importance after the conferences at Paris are concluded. The workingmen have been credited with worthy achievement or charged with lawless and destructive tendencies, perhaps in both respects in unjustified measure. The final attitude of the large majority, certainly in the United States, will be right. Their own welfare will be thus promoted.

But public sentiment, based on facts, developed particularly by the learned, thoughtful, fair-minded, and conscientious men and women who are neither capitalists nor laborers in the sense intended by what has been said, will have, in the future, more influence upon the situation than ever before; and the attitude of the employers towards employees, if it shall be such as I have indicated it ought to be, will be a potent factor for good.

In the front ranks of great and good and successful men and women will be seen the college graduates. Much depends upon them; and they will measure up to their obligations and opportunities.

ETHICS IN BUSINESS

There can be no question that modern business has introduced new situations and conditions affecting conduct and morals. Judge Gary believes, however, that modern business can be conducted with high regard for the principles of ethics. This address was delivered at Northwestern University, Evanston, Ill., June 19, 1922.

During the last decade the world's structure of civilization has been threatened, assaulted and damaged, even to its foundations. At times faith in a merciful and all-wise Providence has been the only perfect assurance of safety. We are emerging from under the clouds of doubt and fear into the sunlight of hope and confidence, and with feelings of gratitude we may calmly survey our somewhat battered institutions in order to determine what, if anything, can be done to repair and restore them and make them firmer and stronger than ever before. Our country is doing and will continue to do its part, and every

citizen has a personal responsibility and must share in the work of reconstruction and readjustment.

A nation depends upon its citizenship for vitality and progress in the plans for rehabilitation which are decided upon. Its endeavor must correspond to the everyday practice of individuals.

With a desire to apply the observations made there has been selected for to-day the theme "Ethics in business." Next to the establishment and observance of the laws of the land, of the highest importance are the questions pertaining to this subject. For the purposes of this occasion the word ethics is defined as the science of moral duty—moral principles and quality in practice. Business is defined as any particular occupation or employment habitually engaged in for livelihood or gain. To quote Stockton: "I do not mean any Marie Antoinette businesses with milk pails decked with ribbons."

In a recent public address President Harding characterized business as being "the biggest thing in the world." By this he may have meant and probably did mean, among other things, that business is necessary to human physical sustenance, which is fundamental in the consideration of all questions.

Business is not confined to any line of enterprise. It is in some degree involved in the success of every calling in life. To the extent that it is attached to any human attempt toward livelihood or gain these remarks will apply in due proportion. Big business, so called, is more liable to be exposed to the public view, but small business is no more exempt from moral responsibility.

It has been said, and some in this distinguished audience may agree, that in practice at least, the science of ethics has no application to business. You may refer to the threadbare injunction of the father to his sons: "Get money, honestly if you can, but get it," and similar alleged utterances. The Reverend W. H. H. (Adirondack) Murray said: "Many a man in prayer-meeting is a perfect saint, but in the shop or office he is an ordinary sinner." There is a widespread belief that a very large percentage of business is carried on without any regard to ethical questions.

Talking, as a business man, to men and women connected

with or interested in and, in many cases, controlling large enterprises, I assert there has been good reason for believing business is occasionally unconscionably administered; though at the same time I aver that it sometimes appears the man most vehement in adverse criticism is himself unworthy and unprincipled.

It is deemed appropriate to be somewhat specific, and as the first illustration reference is made to business corporations for they represent large accumulated capital and the strength for good or bad which proportionally goes with it. As compared with individual enterprise corporations are no better and no worse. Attitudes and results depend upon the management by individuals. The degree of merit or moral turpitude only is involved.

Not many years ago, perhaps not much more than a score, the managers of some of the large private business corporations apparently believed that if their conduct was within the strict and technical rules of law it was immune from public or private attack; that if the provision of no public law was violated the corporation should be permitted to secure unlimited profit and might treat indifferently its customers, its employees, its competitors and even the general public; and not a few officials, in consonance with the same line of reasoning, were inclined to take advantage of inside, advance information to promote their own pecuniary interests to the prejudice of the shareholders generally. By such as these moral principles were ignored.

By this régime the rule of might over right prevailed. In business the Golden Rule was given no thought, certainly no place, in the practice of this school and period.

Competition was tyrannical and destructive. Weaker competitors were forced out of business, often by means not only unethical but severe and brutal. The graves of insolvents were strewn along the paths of industrial development and operation. The financially strong grew stronger and richer. Instead of competition being the life of trade it was the death of trade. Instead of monopoly being destroyed, it was thus encouraged. Instead of increasing combination of capital being prevented it was, in self-defense, forced into existence. The preserved letters, written during this period by owners and managers of

some of the great industrial concerns, furnish indisputable evidence of their disposition to ignore the principles of ethics, all to the everlasting disgrace of industrialism. And these sentiments which have been adverted to were entertained by many men of high repute and honest instincts. They had inherited wrong ideas from the long past.

This school, following traditions, did not give to employees just consideration. The wage rates were adjusted strictly in accordance with the laws of supply and demand. The welfare of the workingmen was decided almost entirely from the standpoint of utility and profit, some thought and credit, of course, being given to safety and physical condition as affecting ability to serve.

And what is true of these employers was also true of their employees generally, whose attitude towards their employers and fellow employees was, in a large measure, controlled by ideas that were entirely selfish and in many cases arbitrary, unreasonable and cruel.

These conditions also resulted in great hardship to the general purchasing and consuming public for, in the long run, costs of production, transportation and delivery were necessarily made larger and, as they always must be, were carried on to the ones whose necessities compelled purchase and use.

The picture presented is not intended to be exaggerated; nor it is limited in its application to industrial or other private corporations. Much of it refers, in varying degrees, to private enterprise and to individuals. It embraces and extends to all lines of commerce and finance, to the arts and sciences, to the professionals and to all educators, even to legislators, in fact to every branch of human effort with which business is associated. But it does not relate to the courts; they compose the one division of society which it must be conceded has rarely, if ever, within our time been reproached for disregard of moral principle.

In everyday life may still be seen evidences of indifference to principle, some involving great moral turpitude. The collector of taxes, of revenues, and others, could bear witness. Those who are imposed upon by profiteers in the sale of the necessities of life and comfort, by demands for extortionate

wage rates or for professional or expert services, may justly complain that ethical reasons are ignored in business conduct.

And the disregard of ethics by great nations has been especially noticeable during the few years last past. The treatment of international compacts and established forms and modes of procedure as mere "scraps of paper" or as inapplicable to the exigencies, the unnecessary, brutal and inhuman destruction of life and property by military forces, temporarily victorious, the needless delay in promptly fulfilling agreements to compensate, in short, the apparent indifference to laws; all furnish the most striking evidence of a deliberate intention to violate moral principle.

It should not excite a feeling of surprise that many well intentioned, fair-minded men and women are incredulous when they read or hear of a claim that business, large or small, involves the question of ethics. Business itself and business managers generally have been blamable for the opinions which have been formed. This is said without attempting at this time to discriminate between charlatans who pose as guardians of the public welfare and others who are sincere.

Let us all freely admit we have not always been without fault in the conduct of our business affairs. However, in doing so, we are not called upon to admit the honesty or the purity of motives of some who may have unjustly criticized us. Recently misstatements of a vituperative character have been made publicly in this city concerning a prominent industrial concern and its managers which were absolutely untrue and without foundation in fact. But we must not allow ourselves to become hardened or impervious to deserved criticism by these unwarranted attacks. Every one must answer to his or her own conscience. Each one should profit by proper censure and correct any unethical practice if and when ascertained.

In this connection it is imperative to emphasize the fact that the delinquencies in business conduct which have been mentioned are not intended to refer to the great majority of business men and women. Misconduct by a few injuriously affects the reputation of large numbers of others, and for this reason professional men, lawyers, doctors and even clergymen, have been assailed as dishonest and unworthy, sometimes without dis-

crimination, by the thoughtless or incompetent. The same is true of industrialists and all others regardless of their avocations.

And it may be asserted with absolute confidence that within the last twenty years or more there has been a decided change in the standards and conduct of business. To my personal knowledge many of the most intelligent managers of business affairs, some very large and others smaller, who have laid down the cares and difficulties of this life, before their final departure completely changed their opinions and reversed their methods concerning ethical questions. This applies also to many who are still living. Hundreds upon hundreds, yes thousands upon thousands of business men, all over this country who twenty years ago believed that the subject of ethics had little if any rightful place in business conduct, now assert and insist that it is essential and controlling. A man of high intelligence and probity about ten years since, while testifying in court, alluding to a certain other man who occupied the highest position in a large business concern, said: "He introduced new rules into the business game." I think it properly may be claimed multitudes of leading business men during the last two decades have voluntarily devoted more and more time and energy in a conscientious desire to conduct their business in accordance with the rules of propriety and honesty.

Business throughout the United States is to-day transacted on a higher plane than ever before, though of course there is always need for further improvement. The world is surely growing better. If time permitted, many striking instances could be given.

The large majority of business men now conduct their affairs in accordance with the avowed belief that right is superior to might; that morality is on a par with legality and that the observance of both is essential to worthy achievement; that the rights of customers must always be respected; that employees are associates rather than servants and should be treated accordingly; that stockholders of corporations, as well as all partners, are entitled to any information immediately upon receipt of the same by any officer or partner, so that under no circumstances can there be preferential rights or oppor-

tunities; that destructive competition must give way to humane competition; and that full and prompt publicity of all facts involving the public weal is demanded.

A few reasons for this radical change may be mentioned for the benefit of all who are present on this occasion. It will do no harm and should be of real benefit to all of us.

And first of all, reference is made to Theodore Roosevelt, who was a true reformer and, when President, had a marked influence as such. I made the same statement in public more than once during the time he occupied that exalted position. Although at first he seemed to be somewhat extreme as to certain questions, his views were modified during his incumbency. I will relate to you an actual occurrence during the early part of his administration. Pursuant to a common practice by him, he called into conference a business acquaintance and submitted for perusal the draft of a proposed message to Congress. Among other things there was contained a statement, in substance, that it was well understood the majority of business was dishonestly conducted. The visitor suggested this assertion was unjust to the business men and to the President himself, for it was not true; that coming from him it might seriously injure business conditions. The President insisted he was accurate in expression and that he could not change it. Thereupon the business man, reiterating his previous opinion, bade the President a respectful and friendly good-by. The wording of the message was not then changed, but before it was transmitted the sentence objected to was eliminated. This episode illustrates the fairness and conscientious caution of Roosevelt and is one of the reasons for his great influence for lasting benefit to business management. He was a great and good man.

Not long after the event described, at a meeting of prominent industrialists, a man of ability and wealth bitterly assailed Roosevelt as inimical to industry and general prosperity. The answer was made, by the business man heretofore referred to, that the President had materially improved business methods. The one who criticized the President, with considerable show of vexation, requested the name of a single individual whose management had been bettered by Roosevelt, and the other

said: "I give you my name," and then related the facts pertaining to the proposed message to Congress alluded to. The meeting was composed of about nine men of more than ordinary ability and influence, a majority of whom at least entertained a feeling of distrust and resentment toward Roosevelt. Not one present made any comment, except as already related, with reference to Roosevelt's attitude toward business. Nearly if not every one who had previously opposed, subsequently changed his opinion of the President's administration.

President Roosevelt had many disciples and with assistance from them he created a strong public opinion in favor of honest business management. This sentiment, however brought about, has had much to do with the change, in the minds of the people generally, as to the desirability and value of closely associating ethics with business.

Public opinion has aroused and will always arouse the consciences of men and women. We cannot sleep or eat well, and we cannot for long enjoy life in the face of the opposing will of the majority, and this is true of most persons, including the vicious and depraved. We dread the condemnation of the general public, especially if there is reason for it.

We object to fulsome praise, even from our best friends, but we shrink and suffer from deserved adverse criticism. This natural instinct in the hearts of well intentioned men and women has had a decided influence in reforming business methods. But it may be added with propriety that many self-appointed and self-styled reformers, who never took any interest or action in regard to business or its reformation until long after it was voluntarily reforming itself, have been conspicuous in claiming credit. They represented hypocrisy in masquerade. They were Pharisees offering prayer on the public streets.

There is another convincing reason for the noticeable changes resulting from the adoption of ethics in business. While the motives are not equally worthy with others, they are very practical and influential with many who would not otherwise be converted. Ethical management brings additional profits to business. Sooner or later it pays in dollars and cents. Any man or concern that firmly establishes a reputation for honesty

and fair dealing which is not questioned has a business asset of great pecuniary value and profit.

In the United States the door of opportunity for progress and prosperity is open to all; but to reap the full advantage one must be actuated by the principles of morality. The standards of ethics as described are not offered as a substitute for Christianity, though possibly as applied to business they are not far apart. No one can successfully claim that ethical management in business will combat religious conduct or that the latter will be obnoxious to the former. The teachings of Confucius, who advocated the Golden Rule many centuries ago, if adopted, will secure good results in business, and will be of pecuniary benefit.

Conscientious treatment of employees which secures their respect and confidence will tend to increase their loyalty and efficiency. Provision for their comfort and happiness results in steady and painstaking effort, incites them to take a personal interest in their work, and gives them assurance that their future faithfulness will be appreciated and rewarded. In every particular a contented workman is far superior to one who is dissatisfied and disgruntled.

One corporation alone during the last ten years has appropriated nearly one hundred million dollars for welfare work in behalf of its employees. This included the establishment of churches, schools, homes with gardens, recreation grounds and buildings, hospitals, medicinal and dental departments, sanitary and hygiene facilities, safety devices, accident relief, old age pensions and many other projects for the promotion of health and happiness. These expenditures have been profitable.

If by honesty and fair treatment we satisfy our patrons they will show it in all their dealings. They will be less disposed to be hypercritical. They will see and act on the basis of the rights of both. They will be reasonable in all their transactions with us and insist upon only what is practical and proper under all existing conditions and circumstances; and if the producer, or anyone who renders service, professional or otherwise, is assailed by outsiders his patrons will champion his rights. This is of much value in times of stress or of unjust criticism.

From considerable experience I assert with confidence and emphasis that, taken as a whole, year after year, the pecuniary gains of a large or small business will be greater if it is fairly, humanely and honestly conducted. If this be true it alone furnishes a logic to every one which should be conclusive.

The approval of the general public up to the limit of propriety is of especial advantage to the business man in every phase of his operations. It is an influence which is realized more clearly than words can specify.

But perhaps best of all, if the business man's conduct is sincerely believed by himself to be honest and proper, he will have the courage and strength to stand solid and immovable against any unworthy attack by the unscrupulous concerning his management. In times of dissensions, coming from any source, such a man can be courageous and patient while waiting for development of all the facts and the rendition of a fair and proper conclusion by all concerned. A clear conscience is a strong weapon of defense in times of ruthless assault, which is liable to be made upon any individual or enterprise. Only those who have passed through an emergency of this kind can fully appreciate this fact. Lincoln could never have lived with serenity through the poisonous and malicious attacks upon his character and his administration except for the knowledge that he had not consciously trespassed upon the limits of moral principle. He knew that sooner or later his motives and his conduct would be fairly judged by an impartial people. Before he was cruelly and wickedly assassinated he was almost universally acclaimed as "honest old Abe," and this alone made life worth living and gave him strength to carry a burden which otherwise would have been too heavy to bear.

The late international conference in Washington was largely economical. Its primary purpose was to reduce expenditures of money for national protection and administration. The financial obligations of nations had grown by leaps and bounds until they were colossal and dangerous, and bankruptcy was imminent in many cases. Something radical and comprehensive was demanded. But this great international convention was called and conducted strictly on the basis of business ethics, and, for this reason only, it was successful. It would have

proved to be a disaster if the selfish, greedy or unconscionable claims which crept into the deliberations from time to time had found lodgment. Fortunately for the whole universe there were men engaged in the work submitted who possessed the talent and the conscience to raise and to uphold a standard of morality which controlled the final action of the conference on all questions presented.

Here was witnessed a world-renowned example of ethics in business; of its desirability and of its value. The intelligent business men of this country and others, those who will best succeed, will be inspired by the so-called Disarmament Conference to apply to business more conscience and higher morals. They will do their part and we shall see a speedy return of the world's business to its normal equilibrium. The repaired and refortified structure of civilization will stand on foundations that shall be solid and permanent against the assaults of wicked men or nations.

As a passing suggestion it may be observed that henceforth the political party which pays the most attention to ethics is likely to secure endorsement by the majority of voters, including especially the women.

In this greatest of all countries, rich in everything that is good and of real worth, we may be hopeful of the future. Beyond the horizon of our temporarily somewhat beclouded vision, the skies of temporal and moral prosperity are clear and bright. Let us be thankful that, under the power and rule and influence of competent or vicious men during the last few years, the world has not suffered more and that at present, in the United States at least, conditions and prospects are good. Let us consider distrustfully those who look darkly through glasses of their own construction, for we know they reflect simply the peculiarities of misinformed or misguided minds.

The alumni of the great universities, whatever may be the extent of their business control or connections, have great opportunity to assist in molding, by practice and precept, the new and improved structure of enlightenment which is needed throughout the world. Let us engrave our names as co-builders upon the foundation blocks of intellectual and moral granite.

SAMUEL GOMPERS

THE AMERICAN FEDERATION OF LABOR

Samuel Gompers was President of the American Federation of Labor from 1882 until his death in 1924, and for forty years was constantly before the public as chief spokesman for organized labor in the United States. Born in England in 1850, a cigar maker by trade, he was an advocate of the rights of labor and active in efforts to organize the working people since his fifteenth year. Upon our participation in the Great War, Mr. Gompers played a great part in rallying the workingmen of this country to a loyal support of our cause. His speech on labor's attitude toward the War is given in Volume XII. He served as representative of the American Federation of Labor at the Peace Conference at Paris and has maintained his leadership of labor in this country during the rapidly changing conditions since the Armistice.

This address which ably presents the cause of organized labor was given before the New York Editorial Conference held at the Automobile Club of America in New York on Tuesday, April 6, 1920. The chairman introduced Mr. Gompers as follows:

The Chairman: Ladies and gentlemen and guests of our meeting to-day: I asked Mr. Gompers a few moments ago if he was going to feel at home in this audience, and he told me that he did not have to feel at home in order to tell what he thought. I told him also that most of my father's gray hair was caused by unions, and he told me that most of his troubles had been caused by bosses, so, so far I think we are perfectly even.

I suppose that before the War it would have been a very unusual thing for us, as a group of papers, representing industry in general, both the technical professions and the trade groups in industry, to ask the President of the American Federation of Labor to address us; but it does not seem to-day to be such an unusual thing to try to get the benefits of the thoughts of a man who represents a point of view which perhaps is a different point of view than that of most of us who are sitting around these tables. I did not come

to make a speech, and you do not want to hear a speech from me. Our guest surely needs no introduction to this audience.

I HAVE been asked to address myself to the economic program of the American Federation of Labor, and incidentally inasmuch as the political is akin to that of the economic, I may address you also upon that topic.

The economic and the political situation and program of the whole world, and particularly of our country, is so vast and involves so much that there is not a phase of the life of our people upon which it does not border or touch. So I shall have to do the best I can in a running talk. I hope I shall not assume the position of a lecturer or of a school-master. I am going to tell you something of the American labor movement, what it is trying to do, and some things with which it has to contend.

The American labor movement is represented by the trade union and by the American Federation of Labor. The Federation is an attempt to crystallize the sentiments and views of the workers of our country so that they might find orderly expression and rational consideration.

Discontent exists throughout the whole length and breadth of the universe. It would be a lamentable thing if the people of our country were contented, as that term is generally understood. So long as man is man there never can be any such thing as "contentment." A healthy, normal, rational and intelligent discontent is the mainspring of progress. When that discontent finds itself manifested in no fashion calculated to be of general good, if the whole thought is "every man for himself" his satanic majesty taking the hindmost, if there is to be no understanding, no correlation, no coördination, then the discontent finds its expressions in ways that bode no good, either to progress or to civilization.

America's workers are not all organized. It is charged or alleged that we represent but a small fraction of the working people of our country. In anticipation of what might be in your minds, as an answer to that which is charged, let me say that with nearly 5,000,000 workingmen of our country organized in unions and in our Federation, it is not true to say that we

represent but five per cent of the working people of the United States. The fact is that, based upon the general calculation of American homes and American people, counting five to a family, and if there be a hundred million people in the United States, as is generally stated, we represent at least twenty-five per cent of that one hundred million.

But quite apart from that, there is a large number of people who are wage-earners or who receive a salary who are either not only unorganized but who are practically unorganizable by reason of their various occupations and service. But in many industries, in the trades and in the occupations where the workers are organizable, there is as high a percentage as 95 to 98 per cent of the machinists, the carpenters, the bricklayers, the printers and many other trades organized. The question for them has been practically solved in regard to the matter of their industrial coördination and association, for their own and their mutual protection.

We, as wage-earners, like all normal people, have aspirations. We hope for a better life; we have an aspiration for a better time. Sometimes it may be based upon an ideal, sometimes it may be theoretical, but it is, in the last analysis, an aspiration for better things, a better life in the work, in the home, in the standards of the American people. We have the hope that not only shall we have this better life ourselves, but that those who are dependent upon us, our children, shall not be required or compelled to meet the conditions of life and of work with which we were confronted when we entered upon the industrial field.

We have caused the children to be taken out of the factories and the work shops and the mills and the mines and have placed them in the homes, in the schools, on the play grounds, that they might grow and fully develop into the manhood and the womanhood of the future upon which the perpetuity of the Republic and our ideals depend. Who are those who can genuinely lay claim to having brought about, even so far as present standards are concerned, the conditions, the laws and the general understanding that the children must not be exploited and their life-blood ground out of them for profit? There are some here and there who now very glibly claim credit

for all they are doing, but it is the much misunderstood and reviled labor movement of America that has taken the children out of industry and placed them in the school room and on the play ground.

There was a time when women worked in the mines, half nude. It is the labor movement of America that brought about such changes that women are no longer employed in the mines. We aim for still better conditions not only for men but for the woman and the child; to make the man more independent and intelligent and energetic and respectful; to make women more beautiful and more intelligent and bright, and to make the children happier and more expectant of the time when they shall arrive at an age where they too shall enter the industrial and commercial field.

There has been altogether too much of an effort among some of our people to take the children out of industry—not to give them the education that shall be of service to them in their lives as producers and that shall fit them to perform a great service for society, but to put them into the professions because the professions are regarded as offering a higher standard than is offered those who do the world's manual work. I have no antagonism to the professions, but there are some of them that are parasitical upon the productive forces of our country. The dignity of labor, not in the form of patronage, of patting upon the back, but the real dignity and service of labor, is wholly misunderstood and misinterpreted by many of our people. My plea is that it is the duty of the men of our time to see to it that our boys and our girls are taught not so much the professions but real industrial and commercial service to our country. The workers perform service to society without which civilization would prove a failure, and progress would be made impossible. As a reward for that service we want a minimum standard, an American standard, a minimum wage, not the highest wage, not a uniform wage, but a minimum wage, a wage below which no American should be asked or required to work and give service. Some have said: "Do you mean then, that all workers should receive the same pay?" The answer is: "No"; pay the standard minimum and all that to which you think the worker is entitled for his superior

productivity or the quality of his production; but no industry, or rather, no employer, should be expected to continue his operation unless he can afford to pay the minimum standard.

The American labor movement holds that any employer who cannot afford to pay a minimum standard of wage, a wage that will conform to the standards of life of American manhood and womanhood and childhood, ought to get out of business and make way for some one who can.

We hold that the American people are willing to pay for a finished article a sum sufficient to insure the payment of a fair minimum wage to the workers. The difficulty lies in this: There are a number of employers who, competing with their fellows in the same trade or industry, seek orders or contracts. The first thing that comes to them in offering a low bid, or in entering into a low price contract, is the attack upon wages, the imposition of conditions less fair than those paid by the average or largest number of employers in that industry.

As a consequence there is as a rule a resistance upon the part of the workers. Or, if there be none, it is the initial test for the employers in other establishments to cheat, in order to meet the conditions of this employer, and then there is a general cutting down, a lowering of standards. It is against the cut-throat competitor, the unfair employer, who looks upon his workers as a commodity, seeking to obtain them at the lowest possible rate, that the resentment of the workers finds its most emphatic expression.

I do not pretend that our movement and our men are perfect, that no mistakes are made. There is only one man in the world who is infallible, and neither one of us is he. But I venture to make the statement that, taken as a group, taken as a mass, there have been fewer mistakes made by the labor movement of our country than in any other group measuring up to its numbers.

Let me quote a statement made by a friend of mine many years ago. He said: "If any group of people is entitled to make mistakes, it is the working people. They have been deprived in their time of the means of education and opportunity and experience, and if mistakes have been made, they ought to be laid upon the shoulders of society rather than upon the

workers themselves." And yet I doubt if there has been any one group or any group of our people which has made so few mistakes as have the organized workers of America.

Nor do I wish you to infer from what I have said that the standard or the minimum wage is to be so fixed that it is unalterable, that it is a fixed thing, that it is static. No. We hold that no part of the people of our country is entitled to all the benefit of the genius of the past ages, or the genius of all the geniuses of to-day.

Our movement is for a better to-day than yesterday, and a better day to-morrow than to-day, and a better day to-morrow and to-morrow and to-morrow—each of them a better day than the one which has gone before. I think that it is an economic fact, scientifically and historically demonstrated, that the constantly increasing demand of the masses of the people for the use and consumption of more and better things is to industry an impetus that it can receive in no other way.

It has been said that if the people of India or the people of China could add one inch of a textile fabric to their already scanty garments, it would give a wonderful impetus to the textile industries of the world. Where and to what more can be attributed a greater incentive and impetus to industry and commerce than to the new demand which the masses of the people make for a better time and a better life?

The old-time idea of skimping the workers, of reducing wages as a means of overcoming a particular industrial crisis or reaction was found to be an absolute fallacy; for, as the masses of the people decrease their use and decrease their consuming powers, industry is contracted and commercial life throttled. It is only when the great mass of the people use and consume constantly more and better things that the great progress of industry and commerce results. There is a notion that the movement of the workers of America for a shorter work-day is inimical to the interests of industry and of commerce and the progress of our country. No greater fallacy was ever uttered than that.

I do not want any one to infer or to say: "Reduce that to the minimum"; or "reduce it to the ridiculous, illogical result, and then don't work at all." No; we want a normal work-day.

The history of industry has shown that the long work-day is not an industrial advantage; that, on the contrary, an eight hour day has thus far been demonstrated as the correct productivity of the workers, not only as individuals but collectively in the aggregate.

It has been said that the workers of the United States are not producing to the extent that they should. My own observation and advice from the great industrial engineers with whom I have come in contact is that the fault lies more in management than with the workers themselves, and in the efforts of some of the acts of some employers who have themselves slowed down for what may be termed better markets or better opportunities.

If you want to get the best results out of the workman in the shortest possible time, well, then, work him forty-eight hours continuously, and he is done for. If you want to get better results you will find a shorter work-day, and if you want to get the best results out of all the workers, have a maximum of eight hours a day, and you get the best productive ability and production.

A shorter work-day brings in new thought and new machinery and new tools and new methods by which the productivity of an industry or of an establishment, or of a workman himself, individually or collectively, is increased.

We are organizing constantly. We have had our setbacks, but we have never gone back to the original starting point. With each reaction, though there may be a decrease in the membership, the decrease never goes back to the time when the reaction set in. Within a period of thirty-nine years the American Federation of Labor, starting out with fifty thousand organized toilers, in spite of bitter and relentless antagonism has grown until now there are four and a half million of members in round numbers. We are going to the five million mark, and we are going further and further and further—not to take over industry, but to have a voice in determining the conditions under which labor shall be performed and services given.

Go into another field of human activity; it is the seller who sets the price which the purchaser must pay, except labor—the

toiler. There it is expected that an autocratic position shall be maintained, that the buyer of labor shall set the price under which labor shall give its services. We do not ask and do not aspire to have absolutism in industry for ourselves, but I repeat that we do insist upon having a voice in determining the conditions under which our labor power shall be sold.

Too often I see and hear the declaration made that the labor movement, the American Federation of Labor, is just as inimical to the interests and the welfare and the progress of our country as is any revolutionary group. And some, very ignorantly or facetiously, claim that the American Federation of Labor and the I. W. W. are identical and attribute to the Federation any particular feature or practice of the I. W. W. which may at any particular time be impressed upon the public attention. It is not fair, gentlemen; it is not right. The object of this labor movement of ours, for which we have given the best that is in us, is to see to it that everything wrongful may be avoided and everything rightful may be done, with the determination that there shall come more light into the lives of the workers and that there shall be a better day for all.

In the hours in which our country found its crisis, in any period in the history of our Republic, did the men in the American labor movement fail our Republic? In the Civil War for the abolition of human slavery and the maintenance of the Union, none gave greater service than the great mass of the workers. During the Spanish-American War, were there any who gave greater and better service to our country and our country's cause, and for the freedom of Cuba, than did the workers of our country, when the unions of workmen by the hundreds resolved at their meetings to send in their charters as unions to their general headquarters and organize as companies or as regiments in defense of the Union and for the cause of Cuba's freedom?

In the war just closed, nearly a month before the President of the United States appeared before Congress and laid before that body the indictment for murder and rapine of the German Imperial Government, the American Federation of Labor called a conference of the representatives of labor of the United States for the purpose of considering what attitude would be

proper and appropriate and patriotic for us to take and to serve our country.

On March 12, 1917, nearly a month before the President appeared before Congress with that indictment, the Conference of Labor unanimously adopted a resolution declaring that, come what may, whether we would be permitted to enjoy the privileges and the happiness of peace, or were drawn into the maelstrom of the European war, we offered our services upon the field of battle or in industry and commerce, and we called upon our fellow citizens and fellow workers to give such loyal service. That declaration was a great encouragement to our people and to the government of the United States. It showed them that, come what may, labor in America would stand true and give every service, and if necessary, make the supreme sacrifice. And, better than all such declarations, my friends, is the fact that the working people of America kept faith and made good.

We have gone through the War. I do not claim credit alone for the organized workers of the United States but for the workers generally—for we represent even all the workers organized and unorganized and we further their interests when they are not capable of protecting their own interests. I know that as a rule the people of the United States, employers, business men and professional men, as well as workingmen, have given whole-hearted service to the cause of our Republic. But there have been all too many lip service patriots, whose only service—or *dis*service—was profiteering upon the people of our country. I refer to the part which labor made in this great tragedy, and I call attention to the fact that we joined, in heart, in soul and in purpose with our country and our country's cause, to make it possible that the people of the democratic countries, and particularly the people of the United States, might have the opportunity of living their own lives and working out their own destinies, unafraid of an autocracy which threatened the world.

During the War everything, practically, was surrendered to that one common purpose—win the war, win the war! And the war has been won. And after the war is over, actually over, there seems to have arisen a hysteria, a spirit of reaction.

The condition of freedom which prevailed in the United States before we entered the War is now threatened to be taken from us. We fought to crush militarism. We fought to crush autocracy, political autocracy, in Germany and Austria. We resent the thought that industrial and political autocracy shall be proclaimed and be the practice in the United States now.

You are editors of the professional, the trade publications, in and around New York, and, I think, for the entire specific trades and industries and professions. You know that only a few months ago, laboring under this hysteria to which I have referred, an effort was made to enact a law that would curb every newspaper man in the United States—the alleged "Anti-Sedition" proposition. I had rather assumed that the credit for the charge made against me should not be considered, but it is quite evident, and those in and around Congress so say, that if it had not been for the timely objection which I interposed against that sedition bill, it would have been enacted long before the newspaper men of the country would have known of it. At least it was the objection and protest which were entered which caused a halt, and with that halt generally known and published, was given the opportunity for the journalists of the country to help in protesting against the enactment of that bill. There may be some of you, ladies and gentlemen, who may say: "Well, it is not going to affect me or my publication. I am a newspaper man. I am not at variance with the Government, or I have no axe to grind," and so forth, and so forth. But you must know that if there be any man or woman coming under, not only the surveillance, but the personal antagonism of some officer or individual, then you are cramped and cramped and cramped further.

You men feel that it is your duty, as men of letters and men who express the views of yourselves and those associated with you, to look after the interests of the trade with which you are connected, and when you have some criticism to make—there is nothing that hurts a thick-headed official so much as criticism, I want you to look at me for a moment, and then size me up as to my age, and all that sort of thing, because I am 70 years young; but I remember an occasion while the late Charles A. Dana was the editor and proprietor of the New York *Sun*

which was then a real newspaper with character and intelligence. There was a gang of political freebooters in Pennsylvania who obtained a court order in Pennsylvania for the production of the body of Charles A. Dana in Philadelphia. He had at that time disclosed and exposed a scheme of corruption existing in that State that has not been excelled anywhere, so far as I know. He also published correspondence between some of the members of that corrupt gang in which—speaking of the sons of the State of Pennsylvania—they used the terms of addition, division, and silence, and, in the language of the street to-day, Charles A. Dana didn't do a thing with those fellows. But they wanted to get him within the precincts and jurisdiction of Pennsylvania—a corrupt gang, corrupt judges and legislators and politicians and business men. He had as his counsel, I think, Willard O. Bartlett, of that famous family of great attorneys, who sued out a writ of habeas corpus and argued the case, I think, before Judge Blanchard. Judge Blanchard dismissed the case and sustained the right of Dana to his position of defense in New York. If they desired to bring a case against him, the court decided that they could try it here. I merely mention that as one of the great characters in American history in the past three-quarters of a century. I could point out to you many, many cases of the visitation of tyranny and injustice, the attempt to put the brake upon expression.

I think you and I hold at least this in common. For, I, too, am the editor of a magazine, the *American Federationist*. I hold this in common with you that the freedom of expression and the freedom of the press must remain unimpaired. If you or I should publish anything which is treasonable or libelous, we may be haled to the court and made to answer for our offense, but there is not in all our land a man good enough or a government agency autocratic enough and just enough, to deny to you and to me the right of free expression or to place a curb on it in advance. It is free expression which makes for a better intelligence and understanding.

The constitutional amendment, the first one offered after the constitution was ratified, was the declaration that the right of free speech, press and assemblage, and so forth, shall never be abridged. That amendment was the result of a cause, and it

was put there for a purpose. People who sing the praises of those in authority do not require a guarantee for the freedom of speech and press. The people of Russia under the Czar never required any constitutional guarantee for freedom of expression, either through speech or the press to sing the praises and laud the administration of the affairs of the country. The purpose for which the constitutional amendment was adopted and added as a part of that great instrument was the right of the people to say ugly things, the things which displeased, the things which are criticism of those in authority. We do not need a guarantee to sing, "My Country 'Tis of Thee," or a constitutional guarantee to recite the wonderful and inspiring words of "The Star-Spangled Banner." We sing the words, with that music, with heart-felt voluntary enthusiasm and sublime devotion. If the people in charge of our government, national, state, municipal, deserve our praise and our service and our devotion, we give it freely; but the right to criticize them is ours. It is the privilege, the right, the guaranteed right of American citizenship.

We ask for our movement the right to organize, to organize into trade unions, into labor unions. Modern industry has taken from us the opportunity of individuality in industry. The division, the sub-division and specialization in industry have gone on to such an extent that workers perform one infinitesimal part in making a great whole product. The workers as individuals lose that individuality the moment they enter the modern industrial plant. They can only have influence in correcting wrongs, removing grievances or obtaining rights, by their associated efforts, and not by having their individualities taken from them.

The Constitution of the United States and of our several states provides that any person having an interest in the courts, either in a civil suit or a criminal procedure against him, has the guaranteed right to be heard by counsel. The working people of the United States insist upon the application of that principle to the worker in industry, that is the right to be heard by counsel, not necessarily a lawyer (for it is our experience that lawyers, as a rule, always injure any effort for reconciliation or adjustment of disputes between employers and em-

ployees), but the right to be heard by some one whom the workers believe has a bit more policy and a bit more persuasiveness, a bit more independence than the workers themselves.

We ask for collective bargaining as a better means for the peaceful conduct of our industries than the individual bargain made with Tom, Dick and Harry at the place where they report for employment. Where the workers apply for employment at the particular place where they are engaged, the positions are generally based upon the most immediate needs of the applicant for work, and others must abide by the standard of the most immediate. We ask that the agreement as to wages, hours, conditions of employment and relations between employers and workers shall be conducted in the employer's office, if you please, or through his representative, there undertaking to agree upon the terms of such employment and the conditions of such employment. The employer may then go forth with the full knowledge that he is safe in his peaceful industrial activity and give his brain the opportunity to work out greater problems of industry and commerce. It is the picayunish employer who does not understand that it is better to devote his brain power to the question of the industry and its success than to be carping and haggling for the purpose of securing workers at the lowest possible standards, and particularly in their individual capacity.

A few months ago the Governor of Kansas called a special session of the state legislature and finally succeeded in having that body pass a law making strikes unlawful and providing penalties for those who did strike, penalties of a fine of a thousand dollars or a year's imprisonment, or both such fine and imprisonment. Since then, the Governor of Kansas having found this new way to industrial peace, has gone around the country, following the bee that has been buzzing in his bonnet for the Presidency of the United States. He addressed the Legislature of the State of New Jersey on March 8, last, urging the legislature to pass such a law and calling attention to the wonderful benefit that would come. He appeared before the Legislature of the State of New York two weeks ago, and urged upon our legislature the enactment of such a law. He is going around the country, to state legislatures, one to the other, in an en-

deavor to have them enact such a law, or at least that he might ride into the presidential chair upon the question of industrial peace—the industrial peace of making strikes unlawful and sending men to jail.

I wonder whether you folks have read this morning's paper —2,000 miners in Kansas went out on strike yesterday. That law has not stopped strikes. It cannot and will not. But it made 2,000 men lawbreakers. No one is an advocate of strikes. I think that there is no movement or any group of people which has done more or done so much to avert and avoid strikes as the American Federation of Labor, the American trade union movement. We have not stopped them, because we cannot stop them. So long as man is man; so long as people feel resentful at a wrong committed, or have a desire to attain a right not yet achieved, so long will people manifest that feeling, that desire and that hope in one form or another. You can not prevent strikes in that way. You may reduce them in number, and they have been reduced. You may reduce them in extent, and the bitterness with which they are fought, but there is not anything so potent to prevent strikes as a well organized labor movement.

My friends, when we are discussing these matters we cannot leave out of our minds the ferment that is going on all over the world in which unwarranted, yes, revolutionary, propaganda is at work. If the employers of labor, the corporations, make the work of our movement more difficult; if they, by their great power of wealth, make our men and women impotent to be of certain service to our fellows, rest assured that our tenure of influence will soon go adrift. It is not that the employers and the business world in our country would be free from agitation and organization, but they would have to confront a new movement in which Americanism and patriotism and idealism would have no part. Our movement would then be impotent. It is a choice.

Though employers are sometimes inconvenienced, though they may feel a resentment at the hasty action of this one or that one, or a small group or another group, the great comprehensive work of this labor movement in America stands as the bulwark of Americanism, and it is a question of just whether

our movement shall go upward and forward in natural development and progress day by day, or whether it shall be taken over by those who have neither respect for labor, for employers, for the public, nor even for the Republic of the United States of America. That is the question, after all.

The American labor movement stands strong, conscious of its power and more conscious, if that be possible, of its responsibility. For us, America is the apotheosis of all that is good and true and worth while. To give service to our country is the hope of America's workers as expressed and practiced by the American Federation of Labor.

RICHARD F. GRANT

DEDICATION OF THE CHAMBER OF COMMERCE OF THE UNITED STATES

The following address was delivered by Mr. Richard F. Grant, then president of the Chamber of Commerce of the United States, at the exercises dedicating the new building of the Chamber of Commerce in Washington, D. C., May 20, 1925. Mr. Grant is head of the M. A. Hanna Corporation. In Volume V we print another address made on this occasion by the Honorable Charles Nagel.

It is peculiarly fitting that we should be gathered on this site to dedicate this splendid new home of American business, for here at one time lived one of the towering figures of American thought and ideals. On this site, while Secretary of State, Daniel Webster lived and worked. It is, therefore, peculiarly fitting that we should have carved in enduring stone on the walls of this building one of his thoughts:

> LET US DEVELOP THE RESOURCES OF OUR LAND, CALL FORTH ITS POWERS, BUILD UP ITS INSTITUTIONS, PROMOTE ALL ITS GREAT INTERESTS, TO SEE WHETHER WE ALSO, IN OUR DAY AND GENERATION, MAY NOT PERFORM SOMETHING WORTHY TO BE REMEMBERED.

This edifice stands as a symbol to the determination of the American business man for service. It is something more with him than a wish, a desire, or a belief; it has ripened into a determination for service, a service built upon a great ideal, that the American business man owes to his country something of himself; that that training and experience and ability which made him a success in business enterprise, ought to be given in unstinted measure to his country in the solution of our na-

tional problems. So, when you attempt to visualize the accomplishment which we have reached, I think you will have to go back to the beginnings of the idea and of the whole movement which has so ripened in this structure.

To you, Mr. Chief Justice, American business owes a debt of unending gratitude. For you, while President of this great land, visualized the opportunity and the obligation that lay in the hands of our business men. You called them together, and, in your wisdom, laid down the fundamentals, that this organization should represent no particular interest and no particular section of the country. So, Mr. Chief Justice, you may be assured that among your many other accomplishments, you certainly, in your day and generation, in this have performed something worthy to be remembered.

Then to you, Mr. Nagel, business also owes a tremendous debt of gratitude, because you were the instrumentality which brought this body of business men to Washington in 1912. You assisted and formulated the plans which have made this organization a possibility. You may be assured also, Mr. Nagel, that you, in your day and generation, have performed many things worthy to be remembered.

Then, when the plans were ready and were turned over to the guiding hands of our business men, they went into strong and constructive and safe hands. To you, Mr. Harry Wheeler, our first president, we not only owe a never-ending debt of gratitude for the services which you have performed in formulating the safe and sound policies which have been followed by this institution, but it was through your vision, through your effort, that this building now is a reality. So I wish not only to note the obligation which American business and America owe to you, but to express to you the esteem and the high affection of the men who have worked with you. You may be assured that in your day and generation you have performed many things worthy to be remembered.

Then we have had the benefit of wise counsel, not only in developing and maintaining a proper financial structure, but also in building along safe and sound and conservative, economical lines. In all of that work, from the very beginnings of this Chamber, we had the untiring and the patriotic, unselfish

work and effort of Mr. John Joy Edson. I can assure you also, Mr. Edson, that in your day and generation you have performed many things worthy to be remembered.

Then, through all of these years it has been necessary, in maintaining the continuity of policy and administrative efforts, that we have strong, guiding hands here at our national office at all times. I am very sure that a great deal of the constructive policy, the long forward-looking vision of this institution, is the personal work of Mr. Elliot H. Goodwin. So I say to you, sir, you may be assured that in your day and generation you have performed many things worthy to be remembered.

So I might go down through the long list of men who have visualized this country, not only as their opportunity, but as their obligation. The directors, the men who have served upon committees, the men all over this country who have caught this vision, this determination for service—they, too, have in their day and generation done something worthy to be remembered.

So to over 10,000 business men, scattered throughout this wide land, from over 1,000 cities, who have financed this magnificent building; to all of the American business men, those engaged in association work, who are striking out for a new dawn and a new day in this country, I say to you also that you, in your day and generation, have performed something worthy to be remembered.

So again let us look on the enduring stone:

> LET US DEVELOP THE RESOURCES OF OUR LAND, CALL FORTH ITS POWERS, BUILD UP ITS INSTITUTIONS, PROMOTE ALL ITS GREAT INTERESTS, TO SEE WHETHER WE ALSO, IN OUR DAY AND GENERATION, MAY NOT PERFORM SOMETHING WORTHY TO BE REMEMBERED.

WILLIAM GREEN

MODERN TRADE UNIONISM

William Green, president of the American Federation of Labor, was born in 1873 and elected as successor to Samuel Gompers in 1924. This address was delivered before the Harvard Union in 1925 and is a very notable statement of the aims and ideals of modern trade unionism.

In embracing this opportunity and in enjoying this rare privilege of addressing you, I am profoundly impressed with the task which I have assumed and the obligation I am called upon to discharge. This is an historic city with a background created by those who, for years and years, have here been engaged in academic training and teaching. Harvard University, with its record of educational achievements, an instrumentality of culture, refinement and knowledge, has, with a fixed purpose to find and know the truth, made most diligent research in the field of social and political economy. Its traditional past has added luster to its glory and fame as an American institution of teaching and learning. Upon this stage with its inspiring setting and before this illustrious audience I bring my message of trade-union philosophy and trade-union creed. With a keen sense of responsibility and appreciating most fully the dignity of my task I am inspired by the consciousness that I have been invited here by the representatives of a group of liberal-minded, sympathetic Harvard people who have created an atmosphere most favorable to a broad, comprehensive, tolerant study of present-day social and industrial problems. Having these circumstances in mind I have chosen as my theme befitting the occasion "Modern Trade Unionism." This is a subject most appropriate for this occasion.

In the domain of industry and industrial endeavor there are numerous factors which play a part in the plan of commodity

production and distribution. Some of these are inconsequential, some important and some indispensable. The outstanding and primary factors in all industrial enterprises are capital and labor. Both are essential in industry and each is dependent upon the other. Between them there is an interdependence so fixed and irrevocable as to make complete success attainable only through understanding and coöperation. If there might or could exist between these two prime factors a proper regard for the functional service of each, within their recognized spheres of jurisdiction, there the age-long conflict between these two forces would be terminated. This would be a most happy and desirable accomplishment; for with understanding, good-will and coöperation established between these basic, indispensable factors in industry all other elements could be developed and utilized to the highest points of efficiency.

It is to these problems of industrial coöperation and understanding that modern trade unionism is addressing itself. We do not believe our common problems are impossible of solution nor do we believe the obstacles to be met are insurmountable. As evidence of our faith we refuse to accept the oft-expounded theory that the differences between capital and labor, between employer and employees, are irreconcilable. The conflicts which arise in industry and which in many instances become bitter and violent are directly traceable to a flagrant disregard or denial of the common rights of either employers or employees. Invariably it arises out of an attempt to substitute tyranny for justice, autocracy for democracy and secretiveness and dictation for frankness and mutuality in industrial relationships. To accept the doctrine that the establishment of right relationship between employers and employees is impossible of attainment means that justice and righteousness have been dethroned and that instead of refinement through education and the development of a keen sense of justice and intellect we still recognize the law of the primitive, the rule of force, where only might makes right. I do not mean by this that the time will come when there will be no controversy between employers and employees over what constitutes a just and equitable division of the wealth which their joint efforts create. Such a difference of opinion manifests itself in

all forms of human activity where men barter, buy and sell. Understanding and agreement upon this controversial subject can with few exceptions be reached through the process of collective bargaining. Particularly is this true where both sides approach consideration of the disputed question with patience, frankness and a spirit of justice and fair-dealing, as between man and man. It is not a disagreement over wages which causes the most bitter industrial conflicts, but it is the denial of the workers' right to organize and to bargain collectively which causes strife which, in some instances, becomes industrial warfare. Where the right of the workers to organize is conceded and collective bargaining is practiced the possibilities of strikes are minimized, but where the exercise of this right is denied and the workers are not permitted to act collectively or speak collectively, through their chosen representatives, a spirit of revolt manifests itself and the resort to strikes become increasingly probable.

The assurance of complete success through the medium of collective bargaining must be predicated upon a mutuality of interest in industry. A positive understanding must be reached providing for a proper regard and a just recognition of the rights of all concerned. Inasmuch as collective bargaining is based and founded upon group action the union of the workers must be unreservedly recognized. In similar fashion the right of employers to control, direct and manage industry and to receive a fair return upon invested capital must be willingly conceded. A spirit and purpose to follow the right and to do the right, to take no unfair advantage, to practice no trickery or deceit, neither to threaten nor coerce, should govern the representatives of employers and employees in all wage negotiations and conferences. Through such reciprocal relationship the common problems of industry can be solved, efficiency in service promoted and economies in production introduced. The practical operation of such a plan of understanding must necessarily be based upon the presumption that employers and employees are no longer inspired by hate, malice and enmity toward each other. Instead, the antagonistic and hostile attitude, so characteristic of the old order in industry, must be supplanted by a friendly relationship and a sense of obliga-

tion and responsibility. This is the newer concept of Modern Trade Unionism. In expounding this philosophy I am conscious of the fact that there are employers of labor (so-called Captains of Industry) and workers in industry (so-called members of the proletariat) who take sharp issue with the views here expressed and the conclusions reached. That is to be expected. It is both logical and natural.

While the employers and employees represented in these two groups are as far apart as the poles upon practically all questions peculiar to modern industry, they are united in their opposition to collective bargaining. They do not believe in it and see no virtue in it. The employers in this group are opposed to collective bargaining because they believe that ownership in industry is supreme, superseding all other rights, and that this is the only authority recognizable in industry. The discarded rule of master and servant is still a part of their creed. They refuse to recognize the relationship of employer and employee. The workers who constitute this other group are opposed to collective bargaining because they assert it means wage slavery. They do not believe in wage contracts or wage-scale regulations. They preach class war and class struggle. They are opposed to the existing social order, to what they term "capitalism," and pretend to look forward to the time when capitalism will be destroyed and the rule of the proletariat will be substituted in its place. They believe that any improvement in wages and working conditions which comes to the workers through the medium of trade unionism and collective bargaining prevents the final triumph of the proletariat and the early realization of their predicted millennium. The enjoyment of high wages and humane conditions of employment by the workers is regarded by this second group as an obstacle in the way of progress while poverty and suffering are looked upon as stepping stones to success. Obviously modern trade unionism is opposed to these two extremes and of necessity is forced to contend against the vigorous opposition which emanates from these groups. Confronted by hostile employers and the workers' revolutionary group, trade unionism is pursuing its own policy, fighting for public acceptance of its creed and philosophy.

The best answer which can be made to those who challenge the workability of collective bargaining is the fact that it has been working successfully in many industries and in many fields of employment. Coöperation, understanding and friendly relationship have been established between employers and employees through the medium of collective bargaining. The success which has come through the establishment of such industrial relationships is a complete answer to those who assert that no harmony or reconciliation is possible between capital and labor.

For the purpose of making comparison between the experiences of early trade unionism and modern trade unionism it becomes necessary to dwell for a short time upon the origin, development and growth of the trade-union idea. We all know from a study of history the progress of the working people from the stage of barbarism to that of slavery, serfdom and later individual freedom. In the the early days of human history the wants of the masses were few and simple. Acquisition of food and shelter satisfied the human instinct and practically all personal needs. Each community depended upon its productive ability to supply the meager demand for the necessaries of life. There was very little transportation of food stuffs and manufacturing was practically unknown. Through conquest and acquisition the strong overpowered the weak and made slaves of the people. Those who were made slaves and serfs were compelled, through forced labor, to work for their masters and lords upon such terms and conditions as the owners and lords fixed for them.

In the development of civilization the use of tools grew and multiplied. Later the use of steam power revolutionized the whole industrial organization and transportation. Manufacturing enterprises were formed and undertaken in all civilized countries. With these changes in civilization came a change in the mode of living. Towns and cities were built and this necessitated the building of highways and railroads so that foodstuffs could be brought from the agricultural sections to the cities, travel could be facilitated and manufactured products carried into the fields of commerce. All of these changes took

place with surprising rapidity, practically revolutionizing the existing social and industrial order.

The human element played a very important part in the transition. The workers were brought together in groups upon the railroads, in the manufacturing plants and in the mines. They became the users of the tools, the operators of the engines and machines. Naturally, the question of wages and conditions of employment became a subject of vital interest to both employers and employees. Differences of opinion arose as to what the wage schedule should be and what constituted tolerable conditions of employment. Out of the differences which arose between employers and employees grew the organization of workers. In the beginning it was crude, simple and of little influence. These organizations we called unions, and were different from the medieval organizations which included all in the industry, called guilds, and their members were both skilled and semi-skilled artisans of master and journeymen workmen. As this form of organization increased both in numbers and influence much opposition was encountered. This opposition became so great that they were classed as revolutionary and against the public interest. Legislation was passed making strikes illegal and the relationship between the employer and employee that of master and servant. From that day to this the struggle for human liberty and industrial freedom has been directed against the legislative restraints and limitations which have been imposed upon the activities of the workers in the formation and growth of their trade unions. The whole process has been slow and tedious. Whatever success has come in the work or organization and in the benefits and blessings which have come through organization to the men and women who toil, has all been achieved as a result of the exercise of great effort, intense suffering, much sacrificing and the expenditure of huge sums of money.

It is clear to all who have studied the history of this great social and economic development that trade unionism is not a discovery or a formula. It grew and evolved slowly out of the needs of human experience. In the beginning when unions were first formed their primary purpose was to defend the workers against wage reductions and unfair treatment. They were

regarded almost solely as defensive measures for defensive purposes only. It seemed that the thought uppermost in the minds of the workers was the maintenance of what had been secured by them in the way of wages and working conditions. The methods employed in those days could be characterized as dominantly militant. The rule of force and might seemed to guide and influence the thoughts and actions of the workers. Concessions granted to workers by employers were usually forced through the medium of industrial warfare. There was little attention given to the thought or suggestion of conference, understanding and reasoning between employers and employees. The thought of fight to win, of force and brutality seemed to inspire both employers and employees in their industrial relationships.

From such crude and primitive beginnings trade unionism and organized labor has grown into the place which, with increasing influence, it occupies in our social and industrial life to-day. During the formative period organized labor relied almost solely upon its economic strength while to-day it places immeasurable value upon the convincing power of logic, facts and the righteousness of its cause. More and more organized labor is coming to believe that its best interests are promoted through concord rather than by conflict. It prefers the conference table to the strike field.

Trade unionism has kept pace with the progress which has been made in industry. It has emerged from its primitive state into a modern institution, grappling with modern problems in a modern way. It is resolutely facing the task of seeking and finding a remedy for existing industrial ills. In doing so organized labor is not committed to any dogma or to any inflexible rule. It shapes its policies in accordance with experience and the circumstances which it is called upon to meet. While the exercise of the right to bargain collectively, to use its economic strength, when such action is justifiable, is considered to be fundamental, it follows a policy of elasticity in its executive and administrative work.

Organized labor recognizes and appreciates the value and importance of education. It believes that the workers can advance their economic and social interest through education and

knowledge. The workers believe fully that the future of the trade union movement is very largely conditioned upon the effectiveness with which we link up educational opportunities with trade union undertakings. The trade unions were truly pioneers in demanding free public schools so that there might be equal educational opportunities. Along with the adoption of the free public school institution labor is advocating a constant widening of the service rendered by the public schools. Culture should not be the heritage of any limited group. All should be enabled to make their life experiences opportunities for culture. The statement made by Lord Haldane that "Class division in knowledge goes deeper than any other class division" is profoundly significant.

In addition to advocating free public schools, organized labor has always favored compulsory school attendance laws and anti-child-labor regulations. In addition, organized labor is deeply concerned in the quality and method of teaching. Holding that democratic institutions place upon all the obligation to participate intelligently in public business the American Federation of Labor has established a permanent committee on education for the purpose of carrying into effect labor's educational program. This committee is promoting the establishment of local coöperating committees on education by every central labor union so that the educational needs of the children of wage earners may be systematically presented to the school authorities. The plan of work suggested to these committees contains the following recommendations: Labor representation on school boards and on boards of directors of public libraries so that the wage earners of the country may be in a position to help secure more adequate appropriations to school buildings, teachers' salaries and library upkeep and administration. These local committees are also charged with responsibility for promoting adult education for wage earners in coöperation with the Workers Education Bureau and securing the coöperation of the local library in plans for adult education.

In the year 1919 the American Federation of Labor first began organizing for educational service. This joint undertaking of learning and labor has since been made the official agency of the American Federation of Labor for its work in the

field of adult education. The bureau promotes the organization of study classes for workers, plans for the development of study guides and aids, as well as the preparation of a workers' bookshelf which contains volumes adopted to the needs of the group. Certainly we can visualize the significance of this educational development. Through education which will bring wisdom to the formulation of the institutions of the future, labor seeks deliverance from the limitations of existing conditions. This does not mean that labor will suddenly discard its militant tactics and traditions. Until employers and management are better educated labor will be forced to maintain defensive and aggressive policies.

We believe that the only way to assure our civilization a culture instinct with life is to make the work process an agency for educating the worker. Whether that work process be making pottery, managing a steel plant, or operating a power loom, it is in the day's work that the human agent shows most clearly what manner of man he is and finds opportunity for growth. If he brings to his work an attitude of mind that is inquiring, resourceful, constructive, he increases his service many fold. When trade unions have established certain fundamental rights which assure industrial justice, and the channels through which mutual problems may be discussed and considered, there is created an opportunity for this higher kind of workmanship. If the whole industrial situation stimulates initiative and therefore workmanship, educational possibilities are quickened. Industrial development of that character will purge our civilization of the blight of commercialism and low ideals. The trade union movement is making its contribution to that end and can accomplish much more when management offers understanding coöperation.

The trade union movement has been passing through that period when physical controversies and the tactics of force were most effective; it is now in a period when its leaders must seek the conference room, and there, by exposition and demonstration, convince conferees of the justice and wisdom of labor's position. In such service labor is finding a special need for trained representatives and effective information.

The new idea of joint responsibility in approaching the solu-

tion of industrial problems on the part of the employers, management and employees is being tried in various lines of industry. As a result of the shopmen's strike in 1922 the management and employees of the Baltimore and Ohio Railroad have been working together in a constructive way and with what seems to be most successful results. A simple preamble which was incorporated in the agreement between the Baltimore and Ohio Railroad and the shopmen's unions, following a settlement of the strike, reads as follows:

> The welfare of the Baltimore and Ohio Railroad and its employees is dependent on the service which the railroad renders the public. Improvements in this service and economies in operating and maintenance expenses result chiefly from willing coöperation between the railroad management and the voluntary organizations of its employees. When the groups responsible for better service and greater efficiency share fairly in the benefits which follow their joint efforts, improvements in the conduct of the railroad are greatly encouraged. The parties to this agreement recognize the foregoing principles and agree to be governed by them in their relations.

Under this preamble a coöperative committee was established consisting of one man from each shop craft and a like number of supervisors who meet once a week to consider constructive suggestions and shop betterment. Consideration of grievances is entirely divorced from the coöperative work. The unions through whose initiative the development began have retained their own engineer. The first problems taken up had to do with planning and routing systems in order to coördinate work between gangs and departments. The tool situation and adequate provisions for tool rooms were also among the early problems. After adjustments were made in such matters the coöperative committee was then ready to study stabilization of employment. During a period of less than eight months more than 3,800 suggestions out of 5,272 considered in the meetings of the coöperative committee were put into effect and are now part of the standard practice of the Baltimore and Ohio. Because this coöperative relationship has brought about practical understanding and good-will, as well as great economies in repairs on the Baltimore and Ohio the development has been extended to the maintenance of way and operation de-

partments. Coöperative agreements have since been signed with the Canadian National Railroad and the Chicago and Northwestern Railroad.

In these and in various other ways the organizations of labor are adjusting themselves to the marked changes which have come through education and the modernization of industry. The union of the workers is not standing still. It is consolidating the gains of the past and pressing courageously along the highway of progress. The union itself is an elemental response to the human instinct for group action in dealing with group problems. Daily work in industry is now a collective undertaking. The union expresses the workmen's unsatisfied desire for self-betterment in all of the phases that desire may find expression. No substitute can hope to replace the union for it has the intrinsic right to existence which comes from service rendered to fit changing stages of development. Many wage earners have had dreams of ownership of industry but we all know that whatever the ownership, private, governmental or employee, the vital problem for us is the terms and relations we have with management. To deal with this problem, labor must always have its voluntary organizations directed and managed by itself.

Working men and women are no longer mere fixtures in industry but instead are intelligent, understanding human beings with a concept of life which emphasizes the cultural and spiritual rather than the material. We want to make it possible for the workers to acquire and enjoy more of culture, refinement and education. Through this process they will better understand industry, their work, and thus raise the standard of efficiency and service. These announced purposes and policies possess merit and virtue and we feel justified in soliciting your sympathetic interest, your approval and support.

E. K. HALL

A PLEA FOR THE MAN IN THE RANKS

Mr. E. K. Hall was born in Granville, Illinois, in 1870, and graduated from Dartmouth in 1892 and the Harvard Law School in 1896. In 1919 he was elected vice-president of the American Telephone and Telegraph Company in charge of personnel and public relations, in which field he is a recognized authority. He is also well known as chairman of the Intercollegiate Football Rules Committee, and a speech by him on football is printed in Volume II. The following address was given at a meeting of over five hundred executives of manufacturing establishments under the auspices of the Illinois Manufacturers' Association, March 22, 1923, at the Hotel La Salle, Chicago.

We do not need to look back 100 years in this country to find industry being carried on either by individuals or relatively small groups of individuals. The shoemaker owned his own tools, bought his own materials, completed his product and marketed it. The factories were small. The employees and the management all lived in the same small town and were generally well acquainted.

Then came the invention of the steam engine, followed later by the discovery and development of electricity as motive power, and then followed the era of the rapid introduction of labor saving machinery. The result was that the production of one man was doubled, trebled and often multiplied even ten or twenty times. One after another came the big machines, the enormous plants and large industrial concerns, all of which resulted in tremendous increases in production.

As the cost of production decreased, the product became cheaper and one after another new articles hitherto unknown appeared, and for all of them at these lower prices there seemed to be endless markets.

Civilization and industry were in the boom and men were now producing in large groups instead of as individuals.

It was literally an industrial evolution. Now what was the effect of all this on the artisan, the worker or the man in the ranks? There were two very distinct effects. The first one was the way it affected him in the ability to secure and participate in the enjoyment of material things—things for which he could exchange the money which he found in his pay envelope. He was able to have a greater diversity of food upon his table, more and better clothing, broader opportunities for himself and family in the way of education, entertainment and travel. Things that had been unknown or luxuries to his parents became commonplace or necessities with him, and he enjoyed many things which even the wealthy of the previous generation had not been able to secure.

Let me give you an incident in that connection, if you need any proof of that statement. I happened to be in Washington not long after the Armistice—when the Plumb Plan, so-called, was presented to Congress. I noticed by the paper that it was going to be presented to the House Committee that day; so I went over to the capitol and heard the Plumb Plan presented to Congress, as a great and wonderful panacea for the industrial problem of the railroads. I sat there and pinched myself, to realize that such a scheme was soberly being presented to the United States Congress as a real, practical thing.

Material Welfare and Unrest

The Chairman of that committee said to the speaker or one of the speakers, who happened to be Mr. Morrison, Secretary of the American Federation of Labor, "Mr. Morrison, I should like to ask you a question. I deem it a very important question. I consider its answer of great importance. The question is so important that I have reduced it to writing. After I have asked it, I wish you would deliberate before you reply, but when you answer, I should like, if possible, to get a categorical answer. I would rather have this answer from you than from almost any man in the United States."

Now, this was the question he asked:

"Mr. Morrison, has there ever been a time in any nation at any time in history when the man who was working for wages was so well housed, so well fed, so well clothed, so well educated, so well entertained, as he is in the United States at this minute? I would like to have you answer yes or no."

After about twenty minutes, Mr. Morrison practically answered that there never had been any such time. And yet, do you remember the conditions which prevailed a few months after the Armistice? Although the material welfare of the man in the ranks had never been so good as at that moment, there never was a time in the history of the United States when the unrest was so acute and so widespread in industrial ranks as it was right then.

It would be naturally expected that as a result of all these material benefits we would have found the industrial wage earner contented and perhaps even enthusiastic over the improvement in his conditions and his opportunities; but on the contrary there had been developing for years an increasing unrest and dissatisfaction on his part with his relations with industry. It was obvious that there was something wrong with the industrial scheme which although it was providing him with great material benefits, was, at the same time, changing his attitude towards his job and towards industry as a whole. This then was the second effect of this new industrial scheme on the worker, namely, the loss or partial loss of his morale and his satisfaction with the job.

This all became very apparent during the adjustment of industry to war and post-war conditions, and you and many other employers promptly undertook to diagnose the situation and find out what was the matter.

And this is what they found, when they came to diagnose the case, that in industry we had been over emphasizing machines, processes and production. We had been underestimating or neglecting too much the prime or motive factor in industry—the human factor. We found that the executives had lost contact with the man in the ranks; that the man in the ranks, who used to be pretty close to the executive, now was a long distance away from him, and in between the executive and the

man in the ranks there had been interpolated all kinds of different officials, of different kinds and different names, so that the man in the ranks never did get a chance to see or know much of anything about the responsible executives, because the industry was too big.

Losing Interest in the Job

We found that he was losing his interest in his job; he was indifferent; he was more inclined to think, not "How well can I do my job?" which the old craftsman used to think, but "How much do I get out of my job and how little can I do?"

We found that in cases he was even hostile, distinctly and definitely hostile to the concern that he was living with, and making his bread and butter from, and we found that he was often going outside for the leadership that he wanted inside, but which in some way or other had disappeared, and that leadership outside was too often contrary to his interests, the interests of the industry, and therefore to the interests of society.

Now it is quite obvious that if that condition really existed, if that was a fair diagnosis, there was something wrong in the new scheme of things—this scheme of big production, which was benefiting the man in the ranks materially, but at this terrible price of taking his interest out of his daily work. If it had really deadened his interest, if it was threatening to alienate his loyalty to the industry, the outlook for industry was indeed serious. . . .

It was soon found that part of the root of the trouble lay in the nature of the industrial organization. Industry suddenly called on to organize large groups of people looked about for a precedent. Up to that time the only large groups of individuals in a single organization were to be found in the military organization and this form of organization was adopted by industry. The big industrial corporation was organized like the army. Instead of generals, majors, colonels, captains, lieutenants, etc., there were general managers, general superintendents, division superintendents, shop and floor superintendents, foremen, etc.,

etc., and a staff organization was built up to plan and advise the line organization. . . .

Now a military organization is suitable for industry so far as form is concerned—the staff for planning, the line organization for administrative and executive duties and the men in the ranks for carrying out the operations. But the spirit of the military organization and its methods are ill adapted to industry. Yet both were too often and too naturally adopted. In industry there is no great emergency. There are no big stakes like lives of individuals and of nations. No industrial organization stands between the nation and its annihilation, nor does it enforce law and order. An industrial organization is simply a corporate individual. It has only the rights of an individual; the right to produce for the benefit of society. It does not have and could not get the right to say "Yours not to reason why, yours but to do or die."

The military has rendered a great service to industry in providing a suitable and practical form of industrial organization. But those industrial organizations that failed when they took the form to distinguish between war and industry, that failed to distinguish between the purposes and prerogatives of war as compared to those of industry, and that adopted the military discipline, the military spirit, the military caste and the military theory, have fallen into grievous error—often unwittingly. In the natural consequences of this error we will find many of the sources of our difficulty—the indifferent or discontented attitude of the worker.

Now what is the answer? Let us see first if we can agree upon the true nature of an industrial organization and the worker's relation to it. First of all, his relation is voluntary. It having become impossible for him as an individual to discharge his responsibility of producing something for society, he joins with other workers and with people willing to supply the tools or the capital to buy the kind of tools required in the modern industrial processes. They join together in a coöperative enterprise to produce something which society requires. The worker is to receive wages in proportion to the value of his services. The capital is to receive wages in proportion to its service and its risk.

Capital's Interest in Industry

Now, if this is the way the organization is set up, who is going to run it? There is not very much question about who ought to run it. Obviously, the people who have taken their own savings, and risked them in the enterprise, are entitled to run it and to have the final and last word to say as to its management. They are entitled to appoint the men who shall for them manage and conduct the business. That sounds like good sense. It is equity. It is sound business. And I never have seen a man in the ranks who questioned it. The man in the ranks admits that is a fair proposition.

But what the man in the ranks would like to do is to know something about the plans. He is willing to turn the proposition over to the other people to run, the people who bought the tools, but he would like to know where the job is headed. He would like to know something about the plans. He would like to know something about the results from time to time. He would like to make suggestions once in a while. He would like to discuss his relations with this joint enterprise. He would like to talk about his compensation and his reward from time to time. He would like to talk over and know something about the changes that are going on, whatever they are. He would like to have something to say about them, or he would like to ask about them.

Now, if we can agree that the industrial organization is really a voluntary organization for group effort, then it is not so much like an army, but it is more like a team. The team has many members often with widely diversified duties but every one is supposed to perform his function at the right time, and in the right way, so that the team can reach the team objective, whatever that objective may be. And success in any large industrial organization, assuming reasonable ability of the men and women on the team, is going to be proportionate to the amount of real team play that there is in the organization.

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Now, how are we going to get team spirit? Would it not be fine if we had it in industry? Would it not be fine if every man

in the ranks was just straining, on edge to get in and help the other fellows put the thing across, whatever it is that you are trying to put across? Well, how are you going to get it? You can only get team spirit in this way: Every man on the team must know that he is a member of the team and that the team is banking on him no matter how humble the position, no matter how seldom he carries the ball. He has got to realize, if he is going to get the team spirit, that he is a real member of the team. Now, he must know also what the team objective is; he must know whether it is going this way, or that way, or the other way. He must know something about his team mates. No man is going to give all he has got, and then some more, unless the fellow right next to him, and the fellow over here, and the fellow over there, is giving all he has got, and more. Then is when you get your team play.

But you have got to know the men on the team first. You have got to know them well enough to believe in them, and bank on them, and you have got to get into the frame of mind where you want the team to win, and you are going to make it win. Then you have got something approaching team spirit. Then, win or lose, you will get the thrill of joint accomplishment, the inspiration that comes from elbow touch elbow effort and that is one of the greatest of all incentives for human endeavor.

Now here is the plea I want to make for the man in the ranks. Make him a member of the team, just a straight, honest-to-God member, and treat him like one till he realizes himself that he is a member. That will take time. It will take quite a lot of time. He does not think he is on the team now. He does not think that you think he is on the team now. He thinks that you consider that your team consists of the men whose names are listed on your organization chart—the chart showing your line and staff organization. He thinks that he is working for that team, and not on it. . . .

Contact, Conference, Confidence, Coöperation

In our companies, however, we adopted about three years ago four guideposts. They have served us well. They never

yet have led us off the trail. We have a good deal of confidence in them. I will tell you what they are, and recommend them for your consideration. It is not a formula, as I say. It is not a panacea. They are simply four guideposts, that have seemed to lead us toward where we are trying to go. We call them "the four C's," and those C's stand for four words: Contact, Conference, Confidence and Coöperation.

Let me explain them to you. Let us start first with this word Contact. I will start with an illustration. Suppose, while we are sitting here, that door over in the corner opens, and we all look over there to see who is coming in. We see a woman with a shawl over her head, and a baby in her arms. It is obvious as we look at her, that that baby is sick and suffering, and that the woman too has suffered for a long time. Now, somebody over in that corner of the room will say, "What is it, madam? What can we do for you?" And she will say, "I beg your pardon. I am all wrong here, apparently. What I am trying to do is to get to the hospital with my baby." Then somebody asks her, "What about the baby?" "Well, the baby has been sick, and the baby is not going to live if I cannot get it to the hospital. Its father is away hunting work, and we have not had any food in the home for two days." Now, what happens? Somebody at every table in this room gets up and says, "Come on, fellows. Loosen up. Dig deep. This family needs some help." Why is action so immediate and spontaneous? Simply because you have been in contact, and direct contact, with human suffering and human anguish and human need. But you do not have to actually see it to know that throughout this city there are thousands of cases of human suffering and human need right now; you know it, of course, in a way, but when you get into contact with it, then you feel it, then you really sense it.

In other words, we have to get close to the things that we really want to understand. We cannot get close to conditions or people at arm's length. We found that as we had grown, and grown, and grown, we had lost contact with the men and women in our industry, and they with us. That was their loss to some extent but it was our loss most of all. We had lost these valuable contacts by getting so big. We must get them

back in some way or other. The first thing is to start getting together again. That is Contact—the first guidepost.

Now, just getting together in and by itself would not be very much more than a gesture. What we want to do is to get acquainted once more, to understand each other, and each other's job, and just where we each fit, and something about the other fellow's ideas and his purposes. Now, that means we must talk over things together. You cannot get acquainted with a man until you have talked with him. You simply say, "Mr. Smith" —"Mr. Jones"—"How do you do," shake hands, and are gone. Smith does not know Jones yet. You have got to wait around and talk with him and then you begin to get acquainted.

Getting Acquainted With Each Other

So here comes along our next guidepost: Conference. We have got to arrange in some way or other to work out some conference with our people, especially between the men in the ranks and the men in the line. Then we will get acquainted with each other; then we will get acquainted with each other's responsibilities and each other's ideas.

We are working on a theory that we believe is a sound theory, and I know that many people in this room are working on a very similar theory in their industries. Our theory is this, that in our companies at least 95 per cent of the men in the ranks, in the line organization, and on the staff, are fair and square when they know the facts.

Well, if that is so, then when they get acquainted well enough they will all come to realize it themselves and they will naturally begin to have confidence in each other. And when they have talked long enough this suspicion, this doubt, this distrust and all of that sort of thing is going to disappear. That is inevitable, if in these three groups 95 per cent of the men are square, and that means that sooner or later they are going to come to have confidence in each other. So that is the third guidepost: Confidence.

Now, that means that they are going to begin to bank on each other, believe in each other, depend on each other, stand by

each other, and see each other through. That is Coöperation. That is what we started for, team work, through contact, conference, confidence, coöperation. Perhaps it would be more accurate instead of speaking of four guideposts, to say three guideposts and a goal post, because the fourth one is really our goal—Coöperation or Team-work.

Now, if an organization is small, if it is not too large, if the groups are not too big, and are not too scattered, that line of three guideposts and a goal post, lays out a very easy course to follow. It is simple. But the trouble is in most of the industrial organizations to-day, the groups are so big, and the organizations are so big, that it is a practical impossibility to get the whole bunch together. You cannot have universal contacts. Therefore, it must be done by having the big groups—that is, the men in the ranks—represented in some way.

We must work out the four C's in part at least through representation. How are we going to do it? Well, obviously it is up to the management or the line organization to take the initiative. The next step is to invite the groups of the men in the ranks, the big groups, to get together and organize in some form and elect their representatives with whom the men in the line can join in establishing these contacts and conferences. Once the organization is formed, and the people in the ranks have effected their organization, what is the next move? It's up to them; not up to you. They will probably go ahead and elect their committees, but right here let me raise a hand of warning. Remember that they are their committees. It is their organization. Do not undertake to butt in and run theirs. It is theirs, it belongs to them, and it is right that it should. You do not need to be disturbed about what they may do. They may do things that might disturb you at first but pretty soon they will begin to invite you to their councils, just as you invite them to yours. But do not try to mix into their organization or try to tell them how to run it unless they ask for advice. It is their proposition.

Now, pretty soon, after these committees are elected, and the management has appointed its committees, they will get together for the first conference. I see a lot of men in this room who have sat in those first conferences. You all know how it

is. Everyone is ill at ease, the people on this side of the table, and the people on that side of the table. Of course, before very long there is not going to be any side to the table. The table is going to be a round table, and you are going to sit wherever you happen to come in. But the first time there are always two sides to the table, and the men from the ranks do not act like conferees. They take the attitude of advocates, and the men from the line do not act like conferees. They also take the attitude of advocates—only they seem to act more on the defensive. Very soon, however, this disappears and they all act more like conferees. Then in some way or other, after they talk it over long enough, the grievances that are the first things brought up, always, sort of get ironed out. The real ones get fixed up, and then the great multitude of fancied ones that are largely due to lack of information, knowledge and understanding, just naturally clear up as the facts come out.

Now, we have things pretty well cleared up. What are we going to do next? Do we stop here? Most certainly not. The man in the ranks has some more things that he wants to talk about. He wants to talk about wages, and wage schedules. He wants to know whether those wages are just. They may be, and they may not be. He does not know. He has been told that they were, but he would like to talk the matter over. He would like to talk about the working conditions. Most likely he has some ideas of his own about them. There are certain spots, very likely, where he would like to have the rough edges pared off, and a little change made here and there. There may be something dangerous in the shop, that keeps him a bit worried, that continually keeps the good wife at home a bit worried, and he would like to know if there is any way that could be made just a little safer. Then he would like to know what the prospects are of the job being steady; whether there are going to be any lay-offs within the next three months, six months, or nine months, or a year. Those things in due time all get talked out, and the conferees come to a general agreement that things are about right, if in fact they are about right. If they were not, they have probably by this time been adjusted.

Now, the job is done, is it not? That is where so many people have made the mistake. This is not the place to stop.

Why not? If the grievances are cleared away, if the wages are at the moment agreed to be all right, if the working conditions at the moment seem to be satisfactory, if dangerous conditions that may have existed seem to have been eliminated, if about everything that the man in the ranks wanted to discuss has been cleared up, why should we keep on? Why, this simply clears the decks, that is all. We have not really gotten anywhere yet. We have just been clearing the decks, and getting ready for business, that is all.

Common, Every-day, Decent Justice

Here is where constructive effort, constructive action really starts. So far, results have been essentially negative. They have been extremely gratifying to all the conferees. But it has only been a matter of doing what is common, every-day, decent justice; that is, letting the man in the ranks know, fully, frankly and thoroughly, just where he stands, and what are his material relations to the business.

But here is where I want to come back to my plea for the man in the ranks. Now is the time to put the man on the team, and make him a member of the team. How are we going to do it? Well, first, make these conferences that you have been having more or less spasmodically and perhaps only when the men took the initiative, a permanent, regular part of the conduct of your business. Make them just as much a part of the organization of your business as the line organization chart that hangs on your wall. If you can, put some of their committees right on the organization chart itself.

Now then, what we want, what every executive wants, if he is entitled to it, is the unstinted confidence of all the men and the women in his organization. All right. How are we going to get it? Give them yours first. If you want theirs, it is your move. It is up to you. Give them yours first, and theirs will soon come back. Prove to them that you regard them as essential members of the team and propose to treat them as such. Prove to them that you are going to have unlimited confidence in them. Take a few chances on making a few mistakes. You will make some but not very many. Give them all of the in-

formation about the business that they will absorb. They are entitled to it. Explain the policies of the business, explain the practices, tell them what is the foundation of the rules, and why the rules are necessary in the orderly conduct of the industry. Tell them why the routines, that seem to be dry and deadening, are necessary, and that routines are simply methods of fixing responsibilities which they know have to be fixed, just exactly as well as you do.

Explain to them about the balance sheet, and what the balance sheet means. Put all of the cards on the table. Discuss the plans for the future. Tell them the obstacles that threaten the success of the industry. Tell them what your difficulties are. Tell them what the problems of the management are, and what your own problems are. They do not realize that you have so many or such baffling ones. Tell them something about the business economics that lie at the foundation of your business. Ask for their suggestions. Let them know that you know they have got brains. Do not let them think that you think you have hogged all of the brains in the industry, because you are wrong. You haven't all of the brains, the men in the ranks haven't all of the brains, but among you all, you have all of the brains that there are in the industry. So why not pool them and get all the benefit of all the brains in the industry for the industry and the people in it. So ask for their suggestions. Put up problems to them, and ask for recommendations, and you will get some answers that will surprise and help you.

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Now, let me give you, in order that I may make myself perfectly clear, two or three illustrations, and if you will pardon me for doing it, I will take them from my own industry. The total assets in our group of companies is about $2,000,000,000. Of that, $1,700,000,000 is invested in plant. We found out very early in talking with some of our people, how they regarded these figures. They saw them in our annual reports. They asked, "What do you do with all this money? Where do you keep it?"

They simply did not get the picture. Why not? Because no one had ever taken the trouble to let them look at it. And the

picture was so easy to paint. Any amateur could paint it. It is this: Our business is so big the Company must furnish the tools. The Telephone Plant is the tools. Every time a man or woman comes to work in our organization, we have got to go out and get $6,000 to provide the tools for that individual. The average investment for tools per employee being over $6,000.

Explaining the Financial Surplus

Let me give you another illustration. Last year the surplus for our group of companies, at the end of the year, was between $24,000,000 and $25,000,000. Now that looks big to any man who is working for wages and who is not accustomed to analyzing figures. It is the perfectly natural thing for him to say, "If all this money was left over at the end of the year, what was the meaning of all this talk that we have been hearing all through the year, about the necessity of economizing; that we must save every scrap of copper wire and that every minute during working hours must count? What do you mean that we have got to avoid waste of time, effort and material all the time in order to be prosperous, when at the end of the year we have $25,000,000 left?" Now, what I said was, "Explain the balance sheet." It is explained very easily, and when you tell the man that if the expense of operating our business last year had been one cent per telephone instrument per day more than it actually was, there would not have been any $25,000,000, but the whole blooming surplus would have been wiped out, and the dividends would have been cut in half, the balance sheet in respect to that item is explained. Then he is ready and anxious to get in and help to keep that one cent per day margin on each telephone instrument, because his job is at stake, his future is at stake, his company is at stake. When he knows that, and understands it, there is no one in the whole outfit who will go stronger or further to help preserve that margin of safety. That is what I was talking about. Not broadcasting the balance sheet but explaining the balance sheet.

Now, I know perfectly well that there are gentlemen in this room here who think just as we do about this, but who are rais-

ing in their minds this question. They say, "That is all right for you fellows in the public utility business, with no competition, you can put every card you have on the table. You can take all of your figures and facts and put them right out on the table. They are open to the whole public now because they are subject to inspection of the public authorities all the time. But we are in private business, in competitive business. There are figures and there is other information that we cannot put on the table the way you fellows do because our competitors might get hold of them." I realize that and you are perfectly right about it. We have the advantage of you there, but it is not so much of an advantage after all. But I will tell you what I think is the answer. You do not have to show to the men any of the facts about your business that it is necessary to keep in the executive offices for the protection of the industry. It is their industry just as it is yours. It is just as much in their interest to protect it as it is in yours. And just the minute that you inspire in the men confidence, so that they are ready to bank on you 100 per cent, all you have to do is to say, "Boys, this is about all we can let you have. We cannot tell you the rest of it. Some of these roughnecks here among our competitors might get wise and we have to tightwad the rest of it." And they will say, "All right. Lock it up. That's your part of the job meeting this competition." Just once get the confidence of the men, earn it, and then get it, and they will take your word for it as to what is proper for them to see and what is not proper for them to see.

Wage Is Not the Only Thing

But we have all of us run across men who have said this to us, "That sounds all right, but you don't really believe it, do you? The men do not care anything about all this information about the Company and its affairs, and how their particular job fits in with the whole thing. Their only interest is in the pay envelope, in their wages, and in how long they have to work."

Well, all I have to say is, if that were true, God help the industries of the United States and the men who are dependent

on them. It is true that wages are necessary and vital. The man in the ranks must have them, just as you and I must have them, for our work. They are necessary and vital to society. But wages are only money, that is all they are, just money, and money is a long way from being the whole thing.

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When the man in the ranks finds that the interest of the boss is not confined solely to the balance sheet, he soon ceases to center his own interest solely on the pay envelope. He knows just as well as anybody in this room knows, that wages do not buy him and cannot buy him the thing that he wants above all else, and that is the pride and joy of work. Where do you people in this room get your real fun? You get it on the job, every day, working on your problems, working at the problems of your industry. That is where you get it. There are men in this room who could retire from business to-morrow. They have the money to retire, but they do not dare do it. Why? They are afraid they would shrivel up and blow away if deprived of joy of work—interesting work. That is their great big interest in life. Don't you suppose the fellow in the ranks wants to get a little taste of that? He wants it and needs it more even than he or anyone of us realizes. . . .

The Habit of Paternalism

Our business, the telephone business, is not in itself a hazardous business, but we have hundreds of thousands of miles of wire high in the air. Men have to work on those wires. Sometimes they have to work on wires that are in proximity to the wires of the high tension companies, which carry a dangerous current, while ours do not. Furthermore, there is a certain amount of accident hazard in any ground or shop work. We formerly used to get out semi-occasionally—not only specifications about how to build the plants, how to carry on the work, but along with that went safety rules, "Don't do this, don't do that. If you do this, do it this way; if you do that, do it that way," etc. We had fallen into the habit of paternalism just as so many of you doubtless had. Our intentions were

of the best but the results were not especially satisfactory. The men kept on getting hurt. Finally someone had an inspiration. Who are making these safety rules? The ablest engineers in the profession, sitting in a room on the top floor somewhere, earnestly working out instructions to fellows out on the firing line as to how not to get hurt. It seemed just like when a youngster starts out for school: "When you cross the street, look both ways for automobiles. Be sure not to step on any banana peels and don't climb any fences with nails sticking out." Why not put it up to the gang, and let them make their own safety rules? They know what causes these accidents. They know what protection they want for themselves and from a careless fellow worker. Give them a chance to do it, and get some real rules. That was tried, and there were some safety rules that *were* safety rules—rules not made by the line or by the staff but made by the men in the ranks. In some of the companies they analyzed every accident for the last five years to find exactly what caused it and how it could have been prevented.

I was trying to answer the question when I started out: Does it pay? The accidents decreased ten, twenty and even thirty per cent in some companies—and in specific divisions and districts as much as sixty and eighty per cent. That is the answer as to what happens, when the men in the ranks are really taken in and given the opportunity to do the kind of things that they can do—often far better than the men in the staff or the line.

Putting Up Prices

Let me give you another illustration. You know, we cannot do the way you gentlemen do to increase our revenues. When you want to increase your prices, you increase them over night. As I understand it, you get together, make a few figures, decide you need some more revenue and then add ten per cent to the price lists in effect the first of next month. I do not know whether that is exactly the process, but to us, who are under the public utility regulation, it looks just about that easy. But anyway, in our business, it is a long, painful, painstaking,

patience-requiring process. It is a major operation, in other words.

The utilities were working on narrow margins before the war, and we are working on narrow ones now. We had to get our rates raised to get them adjusted to the dollar of to-day. Now, in one of our states, not a long way from the middle of the United States, but not adjoining or touching Illinois, for some reason or other this process of adjustment functioned very slowly. I do not think you have such things in Illinois, but there are some states where politics seem to creep into some of these business questions. And in the particular state that I have in mind, politics had entered in. It was a long time before any adjustment was made and the result was that in that state the company was in the red.

Well, in line with the general practice I have been talking to you about, the men in the ranks all knew that. They knew exactly what the results were in that state. They knew that the Company was running behind in that state, and that the other states for the moment were really carrying that state. One day without any of the management knowing anything about it, right out of the clear sky there came a communication, a letter. I wish I had it here. A copy of it was sent to me, and I read it, and it choked me up when I read it. It was from the men in the ranks, and they are a bunch of thoroughbreds. They said, "Whereas," and then they recited the conditions that I have described and they wound up by saying, "We want to do something to help." Now in that particular company the wage scale is set up on a basis of time and overtime. So the men went on to say "If it will help any, we would like to give up our overtime for a period of six months, and if at the end of that time conditions are not better, then we would like to go along for six months or a year more if necessary, so that we can feel that we have done our full share."

Let me give you an illustration right here in your own town; let me tell you what the men here in Chicago did in the Illinois Bell Company last May. We had a lot of what we call "held" orders; the kind of orders where we cannot install your additional telephones as quickly as you want them. I guess you

call them the "Oh hell" orders. Well, they were piling up and up. The trouble was, you had not tipped us off a year or two before as to how much service Chicago was going to call for. There was an abnormal lot of orders waiting when the men in the plant organization realized the situation and they saw that that was not a good thing for the company. They talked it over among themselves, and they came back with a suggestion. Now, in Chicago the men work on a different form of wage schedule, one which does not ordinarily include extra payment for overtime. Those men came to the executives and this was their suggestion: "We have a proposition to make on this held order business. The public does not like it. They don't understand it. It is not a good thing for the company. We will work extra time, overtime, until we reduce that number of held orders to normal. We will put in as many more hours each day as we can put in effectively, to reduce the orders to normal, and relieve this tension." That was their own suggestion. They gave of their own accord, on their own initiative, 60,000 working hours to remedy that situation. For whom? The Company? For themselves? For the management? No. In order to protect the reputation and good name of their team—their company, with the public in the City of Chicago. That is what they gave it for, and they are proud of it and we are proud of them—proud to be members of the same team.

Now that question, "Does it pay?" seems kind of foolish. It seems foolish to ask, "Will it pay?" to give a man a man's chance, a chance for intelligent performance as against blind obedience, a chance to let him help protect his own job, his own future, his own industry.

But I would like to answer that question, "Will it pay?" categorically. If that is what anyone wants to ask, I should like to answer. And I will say this, that in satisfaction to the executives of having given a thoroughly square deal, it will pay a hundred fold. In money, it will pay dollars for nickels, and the time will come in many cases where that one thing alone will spell the difference between success and failure, and I can tell you industries where it has spelled that, within the last two years.

In these difficult days of changing and uncertain conditions, local and world-wide conditions, is it worth anything to an executive or to the group of executives that carry the staggering responsibilities of modern industry for them to know that every man and woman in their organization are with them, because they know that the executives are with them? Is it worth anything for an executive to realize that the men and the women in the ranks have an unshaken confidence in him, because they know he is square, and is banking on them? Is it worth anything to him to know that they are ready to stand back of him through thick and thin, with every single ounce they've got, muscle and brain, heart and soul? Get out your pencils and your paper, and your slide rules, and figure out how much it is worth to an industry to know that the men and the women in it are right behind the leaders to the finish, win or lose. Find out how much it is worth to that industry, and that is the answer to the question of whether or not it will pay.

Normal, Human Relationships

I used to be a lawyer before I came into the telephone business, and I have the greatest respect and admiration for the profession. But I am going to admit that I think the lawyers have unwittingly been very largely responsible for starting industry, and the thinking of industrial executives, up a wrong trail, as to what the real human relationship is, or ought to be in industry and I think it came about in this way. When this great industrial expansion came along, some vehicle was necessary to carry it, and right ready at hand was the corporation which could be made as big as the needs of a given industry demanded. Then the executives called in the lawyers and said, "We have questions here that we want answered. We want to know what is the relationship between this great big corporation, and the men whom it employs. We want to know what are their mutual obligations." The lawyers turned to the common law, that has come down to us through centuries of jurisprudence, and they came back with an answer, and said, "It is the relationship of master and servant." Then the execu-

tive, being advised that that was the legal relationship between the corporation and the employees, apparently began to assume in too many cases that the relationship between himself and the man in the ranks was probably that of master and servant; when if he had consulted either his heart or his conscience he would have satisfied himself that the man in the ranks was entitled to have that relationship become that of brother and brother. That is what the man in the ranks has been yearning for. But it was always the management's first move, and the management was being advised that this was a relationship of master and servant.

I will tell you that right here lies the source of practically all our trouble in trying to work out what we call the industrial relations problem and in trying to find out what is the true, proper human relationship in industry, we have had too damned much Blackstone, and not enough New Testament. That is one of the things that is the matter with industry.

Now, before closing, I want to say this, that I hope in my zeal in presenting the case for the man in the ranks you have not assumed that I feel that in all industries the man in the ranks needs any advocacy by me or by anybody else, or that I feel that great progress has not already been made along the very lines that I have been talking about. Hundreds of industries in this country have already gone a long way in working out this relationship on a coöperative, human basis, and have been bringing the men in and onto the team.

I have neither sympathy nor patience with the men who rant about capital and labor, and who either assume or argue that it is going to be an everlasting conflict between capital and labor, and that in some way or other, it is nothing but a fight to the finish. The executives who take that position, and refuse even to try to work the thing out on any other basis, are not in step with human progress, and in my judgment they are a menace to the industries for which they are responsible. The so-called labor leaders who preach the doctrine of hate and force, and the doctrine of forcing apart instead of getting together, are false to the people they claim to represent, and are a menace to society.

I want to go on record as saying that there has been more

progress in working out this industrial relations problem in the United States, in the last five years, than in this or any other country during any similar period in history.

We have shown the old world that the biggest single problem in government could be worked out by giving to every citizen a real place and a real part in the government. And we are going to show the world that the biggest single problem in industry can be worked out in the same way—by giving every man and woman in a given industry some real place and some real part in that industry.

Now, in closing, I want to tell you a little story. I have told it a good many times, and it may have come to your attention. However, it will bear repeating, because it seems to me it tells the whole story in a nutshell. There were three men cutting stone, stonecutters, working inside of an inclosure, and back of them, up on a little eminence, there was a cathedral, about three-fourths completed. A stranger came along and said to the first man, "My friend, what are you doing?" "Me? What am I doing? I am working for eight dollars a day." He went along to the next man and he said, "My friend, what are you doing?" "Me? What am I doing? I am squaring this stone? See? I have got to make it just like this; see, right there. I have to make it absolutely straight, an absolutely straight edge right down there, on that part of the corner, and square it right off here. Look, I'll put the straight edge on it for you. Isn't that a perfect edge! You see this little niche that I have cut, that little niche right there? The other fellow working down there is cutting a niche just like this, only the other way. His fits right into mine. If we get them just right, they lock together tight, and they are just as solid as if it was one stone." The stranger walked along to the next man and said, "What are you doing, my friend?" "Me? What am I doing? You see that cathedral up there? I am helping to build that. Isn't it great! Isn't it grand!" There is the answer. There, I submit, is the whole answer.

If we in industry can only all realize that working toward the pay envelope alone is a sordid job, that it isn't worth while, that it isn't living, that it isn't life, we will have accomplished much. We should, of course, in every possible way instil and inspire

the interest of all our comrades in doing each his own job so that it will fit into the next fellow's and make the whole thing strong. The more interest and the more pride we can each find in our own individual jobs the better citizens we will be. But we will all find our greatest incentive and our keenest pleasure in the job that we all share together—share and share alike—the man on the staff, the man in the line, and the man in the ranks; and that is the job of building up a great industry that has its recognized place in the community in the state or in the nation. One that we can all be proud of, for it is the product of our joint effort. We have contributed each his humble part. We have felt the joy of joint accomplishment. We have felt the thrill of the team play—the exhilaration of the team spirit. And above all we have had the supreme satisfaction of having played the man's part—working shoulder to shoulder with other men giving every ounce they've got. And there is no higher incentive nor richer reward for human endeavor.

JOHN HAYS HAMMOND

ENLIGHTENED SELF-INTEREST IN INTERNATIONAL RELATIONS

John Hays Hammond was born in San Francisco in 1855. Of all careers connected with modern business that of the mining engineer affords the greatest likelihood of adventure, travel and excitement—the thrills of romance. But few either among ancient crusaders or modern engineers have had experiences comparable with those which make up the life-work of Mr. Hammond. Educated as a mining engineer at Yale and Freiburg, his profession led him into every corner of the world. Consulting engineer for the great mining companies of South Africa, he was the friend and warm supporter of Cecil Rhodes. He was one of the four leaders in the reform movement in the Transvaal, and after the Jameson raid (with which he was not in sympathy) he was arrested by the Boers and sentenced to death. This sentence was afterwards commuted to fifteen years imprisonment, and finally to a fine of $125,000.

After his release through the payment of this princely ransom he went to London where he was actively interested in many mining companies, and in 1900 returned to the United States. Here he has been engaged with many important financial groups in great mining properties in this country and in Mexico. In 1911 he was appointed by President Taft as special Ambassador and Representative of the President to the Coronation of George V. He is a member of many political, civic, and professional organizations, and is welcomed as a speaker before them and before our universities. Certainly Mr. Hammond's experiences eminently qualify him to be heard on the subject of this address which was given before the Los Angeles Merchants and Manufacturers Association in 1922. Another speech by him is given in Volume II.

THE world just now seems to be deep in the slough of despond, and nations seem to be endeavoring to pull themselves out of the mire by their boot straps. If they would adopt a system of

mutual helpfulness and reciprocity, and exert their efforts to extricate their neighbors by means of their boot straps, the nations could soon again reach *terra firma,* and thenceforth the road to that seemingly illusive normalcy, to which we aspire, would be safe to travel with but the ordinary obstacles that beset the onward march of civilization. This would be the spirit of enlightened self-interest which, pending the millennium, is the only dependable motive for the coöperation of individuals, and for an enduring basis of the amity of nations.

Not a few of our present difficulties arise out of the notion that the war wiped the slate clean, that upon it might be freshly written the constitution of a new world. In some localities the war was regarded piously, as a cleansing by fire. It was the dream of some of us that there would be such psychical changes in mankind that it would be possible to establish a kind of universal brotherhood, which would insure peace and prosperity to all the world; whence would emerge the millennium, clean, pure, and probably intolerably smug. But unfortunately the war did nothing so useful. It only revised our old troubles and made some of them so lusty that we scarcely recognize them as old companions, as they stalk around often in a truculent attitude, in place of a former appealing humility. After every great crisis in the world's history a class of calamity howlers is evolved. Through the homilies of the moralists of those epochs, we hear the familiar complaint of high prices, profiteering, of moral depravity, lack of production, industrial indolence, frenetic gaiety, wild expenditure, luxury, debauchery, social and religious hysteria, greed, avarice and mal-administration, referred to by Professor Thompson in his description of the conditions characterizing the aftermath of the Great Plague, which devastated Europe in the middle of the 14th century. Despite the predictions that civilization is going to the demnition bowwows, this old world of ours continues to wag and its inhabitants to survive and there's no danger of the collapse of civilization.

To-day we find these dire prophecies chiefly emanating from those whose vision is circumscribed by the narrow economic vistas of the Wall Streets and the limited political horizon of Washington. To get a proper outlook, one must seek the

Pike's Peaks of the nations, where he can obtain a wider and consequently a more reliable survey of conditions. To those temperamentally incapacitated I would recommend a trip to California, where optimism is inherent and irradiates, renewing one's faith in the future, engendering a resolute spirit which alone can lead the way to the restoration of national prosperity and well-being. We must neither magnify the obstacles to be overcome, nor minimize the difficulties, for the task is indeed a Herculean one, and requires cool, dispassionate judgment, unswerving determination, indefatigable energy, and above all, unity of purpose. The spirit of enlightened self-interest presupposes the recognition of the principle of interdependence. There could be no more useful propaganda than that to impress upon every class of the community its dependence for its well-being upon the general welfare. Such a campaign of education would do well to eradicate the spirit of envy, of self-satisfaction and selfishness that permeates, unfortunately, not only all classes of the community, but all the nations of the earth. This is not a preachment of an ideal, nor merely the enunciation of a great ethical principle, but the desire to develop the conception of a great underlying truth that must be inevitably the guide in human relationship.

Our view from this metaphorical Pike's Peak is more reassuring, and prophecies as to the future more hopeful. To reach these conclusions one does not have to be temperamentally an irrepressible optimist. We have traveled over a rough and treacherous road the past year, and while to-day the going is not especially good, the road ahead seems far better than it looked to us a year ago. At that time Bolshevism was a menace to orderly government throughout Europe. Many were apprehensive that Bolshevism would not only take deep root in the political, economic and social institutions of Europe, but that its pervasive and blighting influence would reach this country as well. Personally I had no such gloomy forebodings as to what would happen in Europe, nor did I for a moment believe that the integrity of our own institutions was imperiled, although of course everyone realized the serious harm that would result from the discontent and unrest created by Bolshevistic activities in this country. To-day Bolshevism has virtu-

ally spent its force, not only outside of its own boundaries, but within the confines of Russia. Bolshevism has been a costly and tragic experiment in the economics of Socialism, but its failure is a complete refutation of those doctrines of Karl Marx which have agitated the proletariat of the world since their earliest propagation. The experience of Russia has taught us a valuable lesson in that it has completely established the fact that State Socialism is a delusion and a snare. But we did not need to go so far afield to see the fallacy of the doctrine of nationalization of industry, for we have our own costly experience in Government control of railways, and of hamstringing interference by Government in other national enterprises. We are all now agreed that what Government could do and should do, apart from its action in regard to national defense and kindred matters, may be expressed in a single phrase; it can see that the gates of opportunity are kept open for its citizens along the whole length of every road that crosses our political and industrial life. In other words, it can assure to all men and women a chance to work and win according to their talent and diligence and their moral fiber, and can guard the path to success from obstruction of trickery, fraud, oppression or monopoly. But the function of Government is not to guarantee equality of reward for inequality of service. All a Government can do in this respect, even a paternal Government, is to give equality of opportunity.

There has been a great improvement in the labor situation, not only in this country but abroad, within recent months. Productivity has increased very considerably, although by no means has it reached the degree of efficiency essential to industrial prosperity, upon which the welfare of labor itself is dependent. One of the favorable signs of the times is that our politicians are less subservient to leaders of organized labor than they have been for many years. Some of them have even the moral courage to tell labor that in making unreasonable exactions it is adopting a suicidal policy. The temper of the American people to-day is to pay labor so large a part of the profits of industry as can be done consistently with the healthy development of the industries themselves. In this, Americans display a sense of justice, and likewise an appreciation of the

need to maintain a high standard of living among wage-earners, in order to insure that high standard of citizenship which is essential to the security and prosperity of a democratic form of government. But labor must know that even so rich a nation as ours would inevitably soon be bankrupt if the cost of production exceeds the value of the product. Labor leaders are also beginning to realize the indisputable fact that if we are to successfully compete in our overseas trade, we must develop the highest possible efficiency in labor, representing as it does so large a share in the cost of production. It is the extension of our export trade that keeps the wheels of industry moving.

Another reassuring circumstance is that we shall shortly have a revision of the tariff. In this connection we must keep in mind the great economic lessons we have learned from the war; one of which is the complete vindication of the fiscal policy which has contributed so largely in the building up and expansion of our great and diversified national industries. There is another lesson of which we should be mindful, i. e., the importance of developing such industries as are indispensable in time of war. Fortunately our people now recognize more clearly than ever before the interdependence of the industries of the country. They know the dependence, for example, of agriculture on the prosperity of the manufacturing industry, for in the manufacturing centers it finds its best markets. They realize that the key note of our economic and fiscal legislation must ever be to preserve unimpaired the integrity of our domestic industries, and the purchasing power of our incomparable home market, which absorbs more than ninety per cent of the products of American labor—in value more than twice that of the total export trade of the entire world. There is fortunately a growing disposition to regard the tariff as an economic, rather than a political issue. This is evidenced by the renunciation of the Free Trade fetich by many sections of our Southern states. In the revision of our tariff we must take in consideration the fact that we are now a creditor nation; that Europe cannot pay even the interest upon our loans in gold, and even were it possible, it would not be to our advantage to receive our payments in gold. The United States already has

more than a third of the gold supply of the world, and the influx of gold continues.

We are faced, in the matter of the tariff revision, with the danger of being impaled on one of the two horns of the dilemma in the liquidation of Europe's debt to us. If we accept her products we must correspondingly curtail our own industrial activities, which would involve widespread unemployment and consequent distress. It would be far better for us to cancel our European credits—and to this we are unalterably opposed—than to risk the danger of paralyzing our own industries by accepting European products without great caution. We need not, however, erect an absolutely impenetrable tariff wall. We must have a bargaining tariff, of course, to enable us to prevent discrimination by other nations in favor of our competitors.

The present situation in the world trade is an interesting economic paradox. In our country we have the anomalous situation of great harvests, a large surplus of American products of industry, unparalleled capacity of production on the one hand, and on the other, the markets of the world demanding, indeed beseeching us in vain, for our surplus goods. It would avail us little in view of the chaotic financial situation in Europe to resume industrial activities on a scale commensurate with our capacity. Indeed the reaction would be to aggravate the very conditions under which we suffer to-day, i.e., congested markets. It has been asserted that the present freight rates to the seaboard are partly responsible for our inability to sell goods to Europe. I do not believe this to be true. As a matter of fact, if many of our products destined for foreign consumption were delivered to our seaports free of charge, it would not even then be possible to effect a sale to the countries of Europe because of their lack of financial credit. How to quickly dispose of our superabundant goods, and to reëstablish international credits so as to enable us to actively resume industrial activities, is for the moment the problem of problems. The *laissez-faire* policy is the line of least resistance, but would require a long time in attainment. It seems to be up to our Government to take the initiative and the leading part in the development of the requisite financial scheme. We are a great

world power and we can be the dominating world influence, if we but take advantage of the opportunity presented. But we must not be deterred from coöperation with other nations by the fear of entangling political alliances—that would be provincialism unworthy of a great power, and likewise incompatible with our national prestige and aspiration. This does not mean that we should subordinate our sovereignty in a league, or in an association of nations. It does mean, however, that we must recognize the fact that with the enjoyment of international rights, there are international correlative obligations. Moreover, as a creditor of Europe in a large amount, we are in a position analogous to that of a banker who has loaned money to a customer whom he finds necessary to "carry along" temporarily, in order to protect the bank against the eventuality of the loss of the loan.

These are problems of to-day—temporary though urgent economic expediencies.

I should like briefly to refer to the situation which will exist after world conditions have again become normal. At that time we shall be confronted with new and serious problems in the expansion of our foreign commerce. The industries of Great Britain and Germany will have been reëstablished, and we shall consequently be deprived of a very large part of the profitable markets we now enjoy in those countries. We shall be compelled to seek elsewhere for our customers, but where are they to be found? Certainly not in considerable numbers in other parts of Europe, for those nations will likewise become less dependent upon us than at present. It is to the so-called "backward" nations in South America, Africa, Asia and Russia that America must look in the long run for future markets. Economists who have studied the world's natural resources believe that the potential wealth is sufficient to insure a state of universal prosperity. Where one section of the world lacks certain materials compensation will be found in the development of its other resources. There is hardly an inhabited region of the globe that may not be made to produce commodities essential to other parts. There would be, in short, everything necessary for the comfort and well-being of the billion, seven hundred million people who inhabit the earth, if

the world's natural resources were utilized. We are living in an age of waste.

There are, to illustrate, upon this earth hundreds of millions of human beings who merely eke out a miserable existence, because they lack the opportunity to engage in productive industry. They are to-day a liability, but we can convert them to-morrow into an asset in the ledger of civilization. Think of the great undeveloped natural resources of these backward nations, with their teeming though idle populations, possessing potential industries the development of which would assure them plenteous harvests, and an abundance of all commodities essential to the welfare of mankind. What is required are means for the development of these countries, together with facilities to transport the products to markets where they would be welcomed. This aspiration would require the investment of large sums of capital abroad. America is the only nation competent to undertake the financing of this great project. It must be done gradually of course, but much can be accomplished within the near future. If we do this, we shall not only create the markets necessary for the expansion of our own industries, but indirectly we shall provide markets for the products of Europe, and thereby shall establish the credit of our Allies, and thus enable them to liquidate their debt to us. This would be a great service to humanity, and at the same time of incalculable benefit to our own country. The investment of a nation's capital abroad is the best means of promoting its foreign trade, for trade follows the nation's dollar just as surely as it follows its flag. It is the open sesame to foreign ports. As a result of many years' experience in the development of industries in different parts of the world, I am convinced, not only of the inestimable advantage, but also of the righteousness of the much misunderstood and therefore greatly deprecated dollar diplomacy. To attain the high efficiency requisite to success in our foreign trade, we must have the aid of fostering legislation at home, and of able commercial diplomacy abroad. We need in our diplomatic corps more men of acumen and business experience to successfully cope with the trained business diplomats who, while affecting contempt for the com-

mercial aspect of diplomacy, are nevertheless keen to promote the opportunities of their countrymen.

The extension of banking facilities is of great importance in the development of foreign trade, and of inestimable advantage too is the maintenance of a merchant marine. While our newly created merchant marine is at present admittedly in a parlous state, the unalterable determination of American people to develop this important adjunct will insure ultimate success. The problem is indeed a complex one, and under present conditions of international trade would be hopeless of solution, but with the revival of world commerce the task will be greatly simplified. We should face the issue squarely and revise our grotesque navigation laws, and should also provide subventions and Governmental assistance in other ways, even the giving of subsidies in order that our merchant marine shall not be handicapped in competition with the subsidized fleets of our great trade rivals. The rehabilitation of our transport systems is of paramount importance. We are hoping that our budget system will do much to prevent the reckless expenditure of the national treasury in the future. We are disappointed with what has been accomplished as yet, but nevertheless do not despair that there will be a revision of the present system of taxation, which has contributed largely to our business depression by withdrawing from circulation capital, the life-blood of industry. There is no doubt that the cooperation of civic bodies such as yours, urging the passage of needed legislation, would avail greatly to expedite Congressional action—indeed would be welcomed by the leaders in Congress, who would thus be reassured as to the popularity of the measures proposed. For while our statesmen may be criticised for playing politics, when influenced by such considerations, after all the main business of a politician, according to the casuistry of the profession, is to strive to give fitting expression to the will of the people in enactment of laws for the public good.

JOSEPH P. HARRIS

THE FINANCING OF ELECTRIC RAILWAYS

The following speech by Joseph P. Harris, vice-president of the Union Trust Company, Cleveland, Ohio, discusses important financial problems in a vivid, personal manner. It was delivered at the forty-third annual convention of the American Electric Railway Association held at the Million Dollar Pier, Atlantic City, New Jersey, October, 1924.

The subject that has been assigned to me to-night indicates from its terms, figures and balance sheets, but I am not going to indulge in such dry topics. I am not going to lead you off into legal technicalities of deeds and mortgages. I am going to direct your attention to a far more fundamental issue and that is public confidence. You have got to restore public confidence in the electric railway and interurban, before you are going to induce the private investor to put his money in electric railway securities. Optimistic as I am regarding the future of the electric railway in this country, I am going to take a positive stand that the electric railway finances are on a sound basis and among the electric railway securities are now some of the best bargains in the investment market. I think I may speak with some experience in that regard being an officer of an institution with some $280,000,000 of deposits, representing nearly 250,000 separate depositors, with $40,000,000 invested in securities; a good portion of them in electric railway and interurban railway securities.

I want to, if I can, convey to this audience here the feeling of assurance and optimism which I feel and we all feel at the Union Trust Company with respect to this great industry. We are speaking, as we know, of an industry representing a capital investment to-day of over six billions of dollars, a part of the public—the so-called public utility industry in America, being

exceeded only by agriculture and steam railroads. Electric railway transportation, I say, represents an investment of six billions of dollars, employs upwards of 300,000 employees, at an annual amount of upwards of four hundred fifty millions of dollars. It transported in 1923 upwards of sixteen billion passengers. In other words, one-third of the population of the entire United States every day of the year; that traffic growing at the rate of 500,000,000 a year to care for, which is going to call for an expenditure of one hundred fifty to one hundred seventy-five millions a year to take care of the expansion of the industry.

That, I say, is the picture we have before us and I need only to quote these statistics to show you the underlying basis for my optimism with respect to this great underlying industry which, as I see it, lies at the very basis of all of our national prosperity.

I was fortunate in having my early training as a bond salesman with a nation-wide house of investment bankers. As originally founded, it was purely a municipal house, handling nothing but municipal securities. The head of that house, going about the country buying municipal securities, very soon realized that these municipalities depended absolutely for their life and growth and prosperity upon the so-called public utilities which ministered to their needs.

Once coming to that conclusion it was a very easy and natural step from handling only municipal bonds to the handling of bonds of public utility corporations operating under municipal franchises, and it was in that house that I first had my training in public utility securities.

As I said, I feel that my function here to-night is to sell this proposition through this audience to the public investors outside. I know that before I am going to be able to accomplish that purpose I have got to thoroughly sell the audience in this room. As an illustration of the difference between selling one's self first and trying to sell some one else without having sold one's self first, I want to cite a little experience that I had as a bond salesman. You will pardon me if I refer to this personal incident, but it illustrates, I think, better than anything I know,

this essential point of salesmanship, that one has to sell oneself before he can hope to sell anybody else.

It was on a hot summer day in midsummer. I had been traveling about the State of Ohio for some weeks without having found a single prospect. I came to the City of Columbus and found there eleven other bond salesmen with exactly the same experience that I had. We were all thoroughly convinced that there was no business to be had, but we went about our routine work calling on our supposed customers and then calling it a day's work.

It was on that day that I started out in the morning and called on my banks in Columbus. In every instance I was told very politely that they had no money to buy, that they were not interested in anything and if they had any money they would not buy anyway.

That was the state of mind that I found in every bank in Columbus. About one o'clock I returned to the hotel to find all the other bond men in town gathered there just beginning a game of poker. Not being a poker player myself there was no recourse for me except to go to my own room. Having reached my room I began to do some thinking on my own account and I very soon decided that the trouble was not so much with the conditions as I found them outside as with myself.

Having once come to that conclusion I looked over my list of offerings and lit upon a street railway bond about which I could really get enthused. I started out at two o'clock in the afternoon to see the same banks that I had called on in the morning, and in less than five minutes after I had entered the door of the first bank where I had been politely bowed out a few hours before I had his order for five thousand dollars of the bonds.

I rushed to the telegraph office and in the enthusiasm which that first sale engendered I returned to the bank next door and repeated with ten thousand, and so on down the street until I came to the largest bank of all. At noon the president, who was as burly a fellow as I know anywhere, had almost hurled me out of the office. I caught him in his office and started my story with such vehement enthusiasm that before he could

utter a word, his first remark as he looked up at me was, "How many have I got to take?"

I was taken a little bit off guard but knowing that I had him I said, "I have got just twenty-five thousand left. I think that will be enough for you."

"All right, send them along."

An hour before he had told me that he had no money and would not be interested if he had any money. That was the answer I received from every bank in Columbus, but there in the course of a single hour, in a town where I would have sworn a few hours before there was not a cent's worth of business, I was able to do, having sold myself first on my own proposition (and a street railway bond at that), $100,000 worth of business when my competitors back at the hotel were sure that there was no business.

It is that kind of enthusiasm I want to get into this audience to-night, with respect to street railway and interurban railways in this country because this industry is going to need in the next few years an average of 150 to 175 millions of dollars of new capital and that new capital has to be raised on the basis of confidence on the part of the investor. That confidence must first start with the gentlemen who operate public utilities themselves.

It is unnecessary, I think, to review at any length the history of the street railway industry. We all know that the first street car which operated under the name of street car traveled up Fourth Avenue, New York City on old strap rail in the year 1832. It was in 1873 that the first cable car operated in the City of San Francisco. In 1888, the first overhead trolley operated in the City of Richmond, Virginia. Since that day, all within the memory of the youngest of us, this great industry has developed to mileage of over forty-four thousand miles throughout the country and as I have said, to a carrying capacity of sixteen billions of passengers, twelve times that carried by steam railroads. Traffic is increasing at the rate of five hundred million a year. All this, in spite of the fact that we have in competition with our street railways fifteen millions and upwards of motor vehicles, all helping to carry traffic throughout the country. It is on account of this fact I repeat I am opti-

mistic and assured with respect to the street railway industry in America.

Among the obstacles or rather among the reasons which have perhaps contributed as much as anything to the ill-repute among investors in which the street railway industry has been held in the last few years particularly, is probably the bugaboo of municipal ownership. Now, I am not a bit worried about municipal ownership campaigns anywhere in this country. All we need to do is to point to the conspicuous examples of municipal ownership and operation of public utilities such as we have in our own town of Cleveland in the municipal lighting plant which we all know now is a fraud upon the citizenship of Cleveland. We need only to point to Seattle where we had the amusing and amazing spectacle this summer of the Committee coming to the banks and asking the banks to take script issue for payment of sheet railwaymen's wages and the banks to take their chances on the community levying taxes sufficient to make up the deficits, a city operation netting a deficit of about four thousand dollars a day. We need only to point to the experience which Detroit is now having and we could go down the list in a multitude of cases to show that municipal ownership which is equivalent to political ownership and political operation is bound to be a failure and a burden upon the tax bearing community.

A very illuminating statement with regard to municipal ownership and its effects was issued by Judge Daws of the St. Louis Court of Appeals in an address only a few days ago and I want to quote from that address these sentences:

"Public ownership of public utilities is but another name for socialism. If you want to throw your city into partisan embroilage, advocate that it shall own and operate its public utilities. If you want to secure capital investment, let the natural laws of economy and of society prevail and leave the ownership and operation of your public utilities under proper regulation in the hands of the men whose lives have been spent in the operation of these utilities and whose education and long practice have made them expert in their highly specialized business."

That is a statement from the bench.

Another thing that probably has caused lack of confidence in

the street railway industry as much as anything else has been so-called jitney competition. I am not a bit worried about jitney competition either and I speak from a little experience in that regard, but before coming to that point I want to point out the general principles on which I base optimism in that respect.

We all recognize that if we are abreast of the times we must recognize that motor bus transportation is a mode of transportation which has come to stay. The street railway and interurban railway companies must recognize this auxiliary to their facilities as probably a necessary auxiliary more and more in the future to feed the existing lines of transportation operated by them. But the illegitimate and promiscuous competition of irresponsible operators, I believe, is a thing of the past or very rapidly is becoming so. We have laws already as you know in twenty-five states and also the District of Columbia laws regulating illegitimate competition of that nature where the transportation companies already existing are giving satisfactory service and it is a matter of public policy, becoming recognized more and more so through public utility commission decisions and supreme court decisions, that transportation is a natural monopoly to be regulated and protected from illegitimate competition and to be handled only by those who are expert in handling transportation.

All of this may sound like theory but I am going to tell you now how it all has been suggested by one personal experience which I happened to go through: The bank with which I am connected, through some circumstances not necessary now to detail, came into possession some years ago, along with two other institutions in Cleveland, of the entire issue of underlying first mortgage bonds on a certain interurban line serving two large cities and several smaller cities in one of the states of our Union. That line was a portion of the consolidated system on which there were other bonds, but we were early told by the representatives of the junior bonds and the consolidated system that the equity they had in our portion of the system they were glad to resign and give the property over to us to work out our own salvation. I had absolutely no doubt as to the ultimate outcome of that proceeding. The property as it was handed over to us as the underlying bond owners represented a

mileage of about seventy-five miles with no franchises in any city in which it operated. The equipment was twenty-eight years old, practically obsolete. The right of way was very much worn down; there was no transmission line and no power house. Otherwise we had a fine property. [Laughter.]

You may smile, but just stop and think a moment that was the only property that could render service to those communities and knowing that fact, I was not at all disturbed as to the ultimate outcome of our venture. I knew those communities had to have transportation. I knew there was no other transportation system on a ground to give that service and it was merely a matter of negotiation to amend all the defects I have just related.

The first position that I took with the mayors of these several communities was that this transportation industry was an industry which was fundamental to the prosperity of those communities and that if we operated in those communities we would have to be welcomed with the same degrees of coöperation and support that any other industry was welcomed in those communities. I was told in a typical way of the values of franchises, and how I ought to pay for them. My answer was that a franchise is not worth a nickel unless it contains terms whereby it may be operated with a profit. Unless I was welcomed with the same degree of cordiality that was extended to others, I would prefer to tear up the tracks and go out of business. I was threatened with city-owned buses, but I reminded them of Akron, Saginaw, Toledo and the futility of that threat. I was not disturbed a particle. I was even told by visitation of two of the principal officials of one of these cities who came all the way to Cleveland to see me, that there were certain ways through which I might get my franchises. As they entered my office I was reminded of a story of a distinguished friend of mine from my *alma mater,* Cornell. Those who heard me tell it before will pardon me for repeating it. As they entered my office, I was reminded of Doctor Carson, the great Shakespearean student, and one of the most distinguished men that ever walked on that campus. It was my privilege to know him rather intimately. He had a prophetic face and long hair which hung over his shoulders. I have often

seen him going down the street in deep thought, stopping in the middle of traffic while he cogitated on some thing or other. It was while on one of these characteristic walks that he met two Freshmen. They saw him coming up the campus and not recognizing him, they saw a chance for some fun. As he approached, one said, "How do you do, Father Abraham," and the other said, "How do you do, Father Isaac." He stopped and looked at them and then he said, "I am neither Father Abraham nor Father Isaac. I am Saul, out looking for my father's two asses and lo! I have found them." [Laughter and applause.]

As I said, these two distinguished gentlemen from the city in question reminded me of that story when they entered my office. I had already laid on the table our final terms, demanding fair play in every instance, which they agreed was fair from my standpoint and absolutely fair from theirs. I told them I was glad to see them. I tried to take them to the races that afternoon but they could not expect anything more from the Union Trust Company. The franchises were passed the next evening. It simply took a little courage for two years to stand on our ground of fair play and fair dealings on both sides to convince the people and the municipal governors of those communities that we had an absolutely fair proposition and that it was only fairness to grant it.

Well, to make a long story short, we executed a new power contract. We built new transmission lines and bought a half million dollars' worth of new street cars and to-day that proposition is being operated by its present owners on a basis to yield twice the interest on four million dollars' investment as against a million, five hundred and forty-six thousand dollars which we had in the property and for which we secured a very considerable profit covering all of our interest and principal and interest on the interest as well as our cost. In other words there was a situation which I think I would have had difficulty selling to this audience but I was absolutely assured from the beginning it was going to work out profitably and satisfactorily from the fundamental reason it was the only property capable of giving transportation facilities to those communities and it was necessary that a franchise be arranged for that property

and satisfactory arrangements provided. I mention that merely to suggest this fundamental principle of electric railway and interurban railway operation in this country. It is a natural monopoly and has to be protected as such. It is public interest. It should be protected and regulated under proper auspices. As long as we have the citizenship of our country leaning in that direction, I say again we can feel assured as to the future of this great industry, one of the greatest lying at the basis of our whole national prosperity.

It has been my custom always to prosecute some sort of a hobby and I think if I can make one recommendation to the average American business man it is that he cultivate some hobby. I think that is the greatest criticism that might be directed against the average business man.

It was my duty not very long ago to prepare a paper for the Philosophical Club at Cleveland on "The Relation of Belief in Immortality to the Credit Structure and Business Relations of our Country." Those two subjects may seem to you strange bed-fellows, but I want to direct your attention to an editorial in the *Wall Street Journal* of November 6, 1916, "Is There a Decline in Faith" in which it was set forth belief in individual immortality was essential to the credit structure of our country and if there were evidences of a decline in that faith as the *Wall Street Journal* pointed out, then we were face to face with a situation in which it would be necessary to reconstruct our faith or change utterly the basis of business relationship and the wide system of credit upon which the basis of business rests.

You may wonder why I am mentioning that subject in this particular. I went at the subject in the discussion of the Philosophy Club, tracing it out through the evolutionary thesis. I found after some eight months of study that the theory of evolution was a matter of fact, no longer looked upon in scientific circles as theory. It is accepted as a fundamental fact, as the law of gravitation. The logical conclusion of this theory of evolution led us to believe, led us to the conviction, in fact, that individual immortality is a fact and all these doings of ours are simply a part of a great evolutionary process which is leading on to individual divine perfection.

I want to get that point across because, as I say, you people here have charge of one of the greatest fundamental industries in this country and no business is sound which is not based upon sound morals and sound ethics. No financial structure can hope to survive which is not based on sound morals and sound ethics, and in closing, I want to urge you and call you to a new sense of the dignity and high calling of your profession to the end that you will not submit to bludgeoning from unscrupulous officials, you will not submit to unfair burdens in franchises, you will demand the recognition due your great industry, which lies at the base of national prosperity.

In the words of the late President Ripley, of the Santa Fe, which he chose as his motto throughout his life, I would bid you to assert that position.

> There is no chance, no destiny, no fate
> Can circumvent or hinder or control
> The firm resolve of a determined soul.
> All things give way before it soon or late
> And even Death itself stands still
> And waits an hour, sometimes for such a will.

[Applause.]

CHARLES S. HART

IMAGINATION IN BUSINESS

Charles Spencer Hart was born in Cincinnati, Ohio. He is a graduate of Yale University and for a number of years has been prominent in the advertising and publishing business in New York City.

Mr. Hart is the author of a book on foreign advertising methods and has made many addresses similar to "Imagination in Business" before commercial and civic organizations.

GENTLEMEN:—However far back you choose to go in the history of the world, you will find that imagination has always been a characteristic in the leaders of men. Imagination has always been, and still is, a basic factor in the world's progress.

It was imagination which enabled Moses to picture the far off land of freedom and plenty to his downtrodden people; it was imagination that caused Copernicus to turn the eyes of his generation towards the heavens and prove the sun to be the center of light and power, and not the puny globe upon which we live; it was imagination which helped Columbus bore through the far horizon and people another hemisphere; it was imagination which enabled Franklin to pull the lightning from the sky and helped the generations that followed him to harness it. It has brought us from the Stone Age to where we are to-day.

But at no time in the history of the world, has imagination been so highly rewarded, has the prophet been so honored, as in the twentieth century. Our forefathers gathered their wisdom from the past and the only practical man was he who had acquired great experience. Yet to-day, it is the business prophet who has the imagination to see into to-morrow, who receives the highest compensation.

The Cyrus Fields and the Harrimans; the Morgans and the Hills; the Edisons and Fords; the Marconis and the Wrights are paid in fortunes and international acclaim because of their ability to see into the future and capitalize their foresight.

The world has paid homage to the great dreamers. It was Lincoln's imagination which enabled him to see clearly that the nation could not survive, half slave and half free. It is the imagination of Rodin which to-day stands in imperishable marble, which has brought him immortal fame. It was the imagination of Michelangelo which we see to-day preserved for posterity in the Vatican at Rome. It was his imagination which Shakespeare dramatized in those wonderful plays that are to-day, and always will be, regarded as the highest expression of English drama.

Just let me illustrate the value of imagination in business by giving you a few practical examples of its actual operation.

I can best illustrate the value of imagination in business by giving you a few examples of its operation rather than by going into a theoretical discussion of the subject:

While Napoleon watched his Old Guard make its last charge against the impenetrable wall of Wellington's Scots Greys, another man waited impatiently on the shores of the English Channel thirty miles away. His name was Rothschild. He knew that Waterloo meant the rise or fall of British commerce and British credit. So with careful planning he had arranged for the fastest horse that could carry the news from Waterloo to the Channel; he had arranged for the fastest boat that could carry him across the Channel, and again the fastest horse that could take him to London. It was his purpose to sell England short if Wellington lost, and buy it long in the event the Iron Duke won. In other words, he had foresight and imagination from a purely business point of view, and the ability to carry his plans into execution. Needless to say, the Rothschild fortunes were greatly augmented by the failure of the last charge of Napoleon's Grenadiers.

How many of us used our business imagination when war was declared in 1914? Where all were exercising their imagination as to the terrible effects of war on the peoples of the

world, how many reasoned as follows: "War demands steel and munitions, therefore a wise investment is steel." As a matter of fact, the Germans were through Belgium before the steel market actually showed that investors were exercising their imagination and thinking along these lines.

A somewhat different use of imagination in business came to my personal attention just a few years ago. A great roofing concern in St. Louis made a roofing for the jobbing trade. They sold it to various wholesalers who placed upon the rolls of roofing their own trade names. The manufacturers wanted to increase the sale of their product by advertising and the question naturally arose, "What roofing are we going to advertise?" It was obviously unwise to create a new brand and start competing with their own customers. Their jobbers, who at that time handled their entire output, would hardly be expected to favor an educational campaign which would direct the consumer's attention towards some other brand. In other words, to go to the consumer with a new brand of roofing meant the sacrifice of a large portion of the company's business.

Imagination was put to work and a way was finally found not only to reach the consumer effectively but to get the benefit of what prestige had already been obtained by the jobbers' brands. The first step was to coin a name which could be applied to all roofing of the company's manufacture, no matter under what brand name it had previously been sold. The words "Certified" and "Guaranteed" were combined to form the name "Certainteed." A label was designed with this word featured prominently, leaving off the manufacturer's name, which was called the "Certainteed" label. When this label was affixed to a roll of roofing which also carried a jobber's brand it provided something to advertise which would not conflict with any existing arrangement. The company did not advertise General Roofing, which was their firm name, nor did they advertise any jobber's brand, but confined their advertising to Certainteed Roofing, which is the same thing with a difference. The label was put on the company's brand sold to the trade as well as on the jobber's individual brands. Thus in advertising the word "Certainteed" they allowed their jobbers to sell more of their brand, and at the same time gave their

own product a trade name with the subsequent stability that comes from a well-established trade name.

A few years ago a great spinning mill moved from Massachusetts to Georgia, because its owners wanted to get better water power, cheaper labor and lower freight rates.

Long rows of new mills were built, thousands of shanties were put up and thousands of negroes moved in. The manufacturer figured out everything carefully except one thing—the nature of the negro.

The first Saturday night came and thousands of happy colored folk left the mill with their first week's wages. On Monday morning a few—not many—of them came back. There were enough who did come to run three mills. The remainder of the mills were silent. Tuesday morning another mill started, Wednesday another and by Friday noon all were going again. The same thing happened for several weeks and the management tried everything they could think of with their people, scolding them, discharging them, paying them more and paying them less. But so long as the negroes got enough to eat by working three days out of the week, they saw no reason why they should work the other three.

About the time that all seemed lost and the mill owners were planning to return to New England, a young man with imagination evolved a plan. He took charge of the company store. He put in large, plate glass windows, and in these show windows he put purple hats, silver-headed canes, patent leather shoes and checked clothes of the latest Harlem pattern. The stock was rapidly sold out and replenished. And as the young colored people of the community vied with each other in the glory of their raiment, they found it necessary to work six days a week to support these new desires and the business was saved.

The business of the world grows steadily because imagination is set to work to create new wants, and it is the creation of new wants that really constitute the progress of civilization.

The theatrical press agent is, of course, a man whose business entirely depends on his imagination. I remember, during the War when I had charge of Government propaganda through theatrical and motion picture channels, a certain manager in

charge of one of our films who demonstrated his imagination in an unusually effective way.

A certain well-known western city with a large percentage of foreign population was apathetic to the war. A large auditorium had been secured, full-page advertisements had been run in the local papers and the city had been blanketed with 24-sheet posters. Yet for the first week the attendance was very small. However, it was one of the particular cities in the United States which we wished to reach with this type of propaganda and consequently the daily reports coming in from this manager, all of which indicated a lack of enthusiasm and attendance, gave us a good deal to worry about. But suddenly the second week's attendance shot up to the full capacity of the house and continued that way for a month. A little while later this particular manager returned to Washington and I asked him the reason for the sudden change. He told us that Friday night of the first week, at about 2 o'clock in the morning, which as you know, is the darkest hour, he set forth with two trusted lieutenants, armed with paint brushes and buckets of paint. Wherever they located a Government war poster, advertising this particular picture, they mutilated it by painting large black crosses on it. After completing the circuit of the city, they went back to bed and awaited results.

The outrage was, of course, soon discovered and the next day the newspapers were filled with details of the mutilation and a hue and cry was soon started throughout the city for the traitors responsible for this vandalism. Naturally that night the theater was crowded and it continued that way until the end of the run.

The point I wish to bring home to you is that this particular manager used his imagination to bring the picture forcibly to the attention of the public.

You are familiar with the motion picture known as Tarzan of the Apes, and some of you doubtless remember the way that it was freely advertised on the front pages of practically every New York newspaper. The press agent for this picture registered at the Belleclaire Hotel as Mr. T. R. Zan of Cape Town, South Africa. He requested the management to send 80 pounds of meat to his room. When they investigated

they found that he was playing host to a full-grown lion. It is one of the few instances where an imaginative and resourceful publicity man secured columns of front-page advertising in the metropolitan press, something which money cannot buy.

The unskilled worker too, may be benefited largely by the application of a little imagination. But usually you must supply it and tell him how to use it.

Mr. Lorin F. Deland, the well-known business counselor, gives a very interesting example of this. A man came to him who was a failure. He had failed many times and lost heart completely. He was willing to work but did not know what work to do nor how to get it. He had lost his self-respect under the repeated blows of fortune. His impracticality made him a failure, his failures made him despondent, and his despondency paralyzed his will.

Mr. Deland advised him to keep away from the beaten track—he had been turned away from so many employment offices that they filled him with fear and left him trembling. Mr. Deland suggested that he make a business of going from house to house and offer to wash pet dogs for their owners. Laughable, perhaps, but it did not take a month to create for that poor man a business that was non-competitive and independent.

He charged fifty cents a dog. In most cases, it was a regular weekly service. It was not difficult to get business. There was no one else doing it, and your wife will tell you that washing the dog is not the scheduled work of any one of the maids in the house. In the dog washing business you are independent, you work for yourself, you operate a genuine industry. No superintendent dictates your hours nor discharges you at his pleasure. You are your own boss. And so in this case imagination made a finer thing of a human being.

It is a fine thing to make a human being fit for labor. In finding an opportunity for this unskilled worker to govern his own career, was planted a seed of independence.

I could tell you many, many stories of what imagination has done for business men in every rank. It is an essential to success. Enterprise, thrift, industry and courage are splendid

attributes, but they are only half efficient if imagination is lacking. In the words of Herbert Kaufman:

Dreamers are the architects of greatness. Their brains have wrought all human miracles. In lace of stone their spires stab the Old World's skies and with their golden crosses kiss the sun. The belted wheel, the trail of steel, the churning screw, are shuttles in the loom on which they weave their magic tapestries. A flash out in the night leaps leagues of snarling seas and cries to shore for help, which, but for one man's dream, would never come. Their tunnels plow the river bed and chain island to the Motherland. Their wings of canvas beat the air and add the highways of the eagle to the human paths. A God-hewn voice swells from a disc of glue and wells out through a throat of brass, caught sweet and whole, to last beyond the maker of the song, because a dreamer dreamt. Your homes are set upon the land a dreamer found. The pictures on its walls are visions from a dreamer's soul. A dreamer's pain wails from your violin. They are the chosen few—the Blazers of the Way—who never wear Doubt's bandage on their eyes—who starve and chill and hurt, but hold to courage and to hope, because they know that there is always proof of truth for them who try—that only cowardice and lack of faith can keep the seeker from his chosen goal; but if his heart be strong and if he dream enough and dream it hard enough, he can attain, no matter where men failed before.

Walls crumble and empires fall. The tidal wave sweeps from the sea and tears a fortress from its rocks. The rotting nations drop off Time's bough, and only things the dreamers make live on.

WILL H. HAYS

TEAMWORK

Will H. Hays was born in Sullivan, Ind., in 1879, graduated from Wabash College in 1900. The same year he was admitted to the Indiana Bar and elected Republican committeeman for his precinct. Since then he has been appearing constantly before the public as a speaker with a rapidly widening reputation. As Chairman of the Republican National Committee he organized the successful campaign of 1920 and entered President Harding's cabinet as Postmaster General. After a year's service he resigned to become President of Motion Picture Producers and Distributors of America, Inc.

This address was given by Mr. Hays as Postmaster General before the Annual Convention of the National Association of Letter Carriers in St. Louis, Labor Day, Sept. 5, 1921.

In his inaugural address on March 4th President Harding said: "Service is the supreme commitment of life. I would rejoice to proclaim the era of the golden rule and crown it with the autocracy of service."

This is Labor Day. It is not the birthday of a hero nor the founding of a nation; it is not the anniversary of a battle nor the crowning of a king. It is the day when the world by outward manifestation recognizes the worth of man; when man as man feels his power and glories in it. It is the day when from one end of the Republic to the other millions of citizens are paying tribute to that vast army which follows the banner of labor—the most potent factor in building up and making great and strong this nation. It is the day when we teach our children that labor is honorable and only through it can we possibly hope to achieve the beneficent ends for which society is established and government founded. Such is the day we celebrated to-day, such is Labor Day everywhere.

Labor organizations have their origin in the instinct of self-preservation, of mutual advancement, of common good, and are as natural and legitimate as the organization of capital. In fact, the organization of labor and capital naturally go hand in hand. The one is essentially the complement of the other. That labor organizations have done much to advance the cause of labor there is no question. They have been earnest advocates of education, knowing full well that knowledge is power. They have founded benefactions and paid millions of dollars to their members. They have helped to increase wages and secure reasonable hours of service from unworthy employers. They have helped to abolish the conditions in the sweat shops of many of the great cities. They have stood against the abuses of child labor. They have taught the necessity of observation of contracts, knowing that contracts are founded in honor and are the basis of commercial success. They are opposed to anarchy for they know that labor's best interests are dependent upon the maintenance of orderly and stable governments.

The labor of the country constitutes its strength and its wealth; it is the country's one greatest asset. In the war crisis through which we have passed the labor of the country was its salvation. The better that labor is conditioned, the higher its reward and wider its opportunities, and the greater its comforts and refinements, the better will be our civilization, the safer will be our government, the more sacred will be our homes, the more capable our children, and the nobler will be the destiny which awaits us.

It is not given to the wisest to see into the future with absolute clearness. No man can be certain that he has found the entire solution of these infinitely great and intricate problems and yet each of us, if he would do his duty, must strive continually in so far as within him lies to bring about that solution.

We must remember first that we are all one people; that we are all the workmanship of the same divine hand; that with our Creator there are neither kings nor subjects, masters nor servants, other than stewards of his appointment to serve each other according to our different opportunities and abilities.

And we must learn the two lessons, the lesson of self-help and the lesson of giving help to and receiving help from others. There is not a man of us who does not sometimes slip, who does not sometimes need a helping hand, and woe to him who, when the chance comes, fails to stretch out the helping hand. It is as dangerous now as it was just outside the walls of Eden to ask in surprise, "Am I my brother's keeper?" If this is our criterion we can face unflinchingly great industrial problems, vast in their importance and complexity. For myself I am convinced that the true solution of the questions arising between labor and capital lies in an awakened public conscience, in a thorough inculcation of the spirit of fair dealing among men; then in organization, and in wise humane leadership, and in the establishment of boards of conciliation or arbitration which are absolutely free from the polluting touch of selfish interests or political demagogues, to which the interests concerned may freely and confidently appeal. I believe, too, that we must develop a reasonable method for honest and efficient labor to have an opportunity to acquire an interest in the business to which it is expected to give its best efforts. Pending this development, the equilibrium between production and wages must be established and maintained and there must be justice for all—exact justice, the justice of right and of reason, and not of force. Force is the method of the savage—patience and diplomacy of the sage. Let our motto be to build up, not in any sense to tear down, remembering always that law and order are above all things else.

This is no generality, no mere truism. You have laws in your association. Neglect your laws and your association will fail. Obey your laws and your association will stand. Let care be taken in the making of laws and when made see that they are obeyed. Have officers that will enforce them; if they don't, then change your officers. The labor unions of the country will realize that as they value their success, so will they value law and order, knowing that without law and law obeyed there is chaos, calamity and ruin. We are the freest government on the face of the earth, but our strength rests in a patriotism which measures a regard for law and order in reverence. Anarchy flees before that patriotism. Peace and order and

security and liberty are safe so long as that kind of love of country burns in the hearts of the people. Never must it be forgotten that liberty does not mean license. Liberty to make our laws does not give us a license to break them. Liberty is responsibility and responsibility is duty, and that duty is to preserve the exceptional liberty which we enjoy within the law and by the law without any temporization or compromise whatsoever. "Liberty is fire in the hearth; license is fire on the floor."

The fact is of course, my friends, that the brotherhood of man and the Fatherhood of God is the one reality of immeasurable stupendity. The one idea which, (I quote:) "like a golden thread runs through all history, is the brotherhood of man and the Fatherhood of God. It ties all ages together. It relates all peoples. It explains all events. It illuminates all history. The development of successive centuries is but the result of the orderly processes of evolution, the gradual unfolding of this supreme purpose of God."

Living is a serious business, my friends. It is a serious thing to live; yes, a serious, but a glorious thing to live. Whether we believe as Christians, as we do, that there is a future life, or whether we believe with infidels that death ends all, of one thing we are certain—we are here. The great present is about us—the most potent present since time began. Truly, to live, to really be and do in this great day of being and doing, is of tremendous consequence. It's a great battle. A magnificent contest. A glorious struggle. And every right-minded man must needs be filled with the righteous desire to be one in the total of its activities, to be one in the quotient of being—and to be as near the left side of the number as possible.

Yet, my friends, there is danger in this roaring, toiling, stormy fray, of becoming so imbued with the spirit of conquest, so animated with the zeal of success, or even impelled by the smartings of defeat, so full of the strife itself, that the beauties of life are lost sight of, the tender emotions smothered, and we are prone to forget that the "other man" is our brother; that he is born of a mother as we are; that he is possessed of the same feelings as we are; that his strivings, his endeavorings, are as worthy as our own and entitled

to the same consideration. Then, my friends, it does us well to pause and ask ourselves:

> We live in deeds, not years; in thoughts, not breaths;
> In feelings, not in figures on a dial.
> We should count time by heart-throbs.
> He most lives
> Who thinks most, feels noblest, acts the best.

Platitudes, these, one may say. Platitudes, perhaps, but the one and only successful practical working philosophy of life. Personally, I would rather love my friends and be loved by them than to have all the wealth in the world.

> Friendship like a noble river,
> Rolls its peaceful waters by;
> Tempest tossed and troubled never,
> Gliding to eternity.

It gives me great pleasure to attend the annual convention of the National Association of Letter Carriers. There is no division in all the great postal service of more importance than the letter carriers. It is the letter carrier who finally delivers the goods. The carriers are the points of contact most intimate with the public. It is the carrier that will not only deliver the mail in the courteous, efficient and proper manner which the public requires—the carrier can do more than any other agency in educating the public to aid the service. I would hope that the carriers make this their business, just as certainly as the delivery of the mail, in order that early mailing may be encouraged, that the mail may be properly prepared and addressed, and that all the instructions to facilitate the service which the department would have reach the public might be carried to the public by the carriers themselves.

You know, the postal service is generally taken for granted like the sequence of the seasons. Men forget that it is a fact that the United States Postal Service is the biggest distinct business in the world; that we have 300,000 employees immediately connected with the operation, with 100,000,000 customers. The annual turnover of the business in the Postoffice Department

amounts to nearly three billion dollars, with an expenditure of six hundred millions annually. We have the largest express company in the world, handling over two billion packages last year. We have the largest savings bank in the world in number of depositors, with 75 per cent of the depositors of foreign extraction. There is twice as much postal business done in New York City alone as in the entire Dominion of Canada. The business of the New York office has increased 289 per cent since 1912—with no increase in postal facilities since that date. A million seven hundred thousand letters are handled every hour by the Postoffice Department. Every time you buy a postage stamp you are a part of a total of fourteen billions annually. There are 1,125,000,000 postal cards sold each year and 9,000,000 stamped envelopes; debts to the amount of $1,500,000,000 are satisfied each year through the sale of 150,000,000 money orders. The earth could be encircled ten times with the two rails on which the mail is carried in the United States. We use 400,000 quarts of ink in a year and 25,000 quarts of mucilage, and enough lead pencils to place one behind the ear of 1,500,000 persons. We use 800,000 miles of twine every year, enough to girdle the earth thirty times. There are 19 million undeliverable letters handled annually by the Division of Dead Letters owing to the neglect of the public in addressing mail. In New York City alone there are over 250,000 letters readdressed daily by clerks from city directories. Just imagine the tremendous cost this is to the taxpayers, due to carelessness of mailers. Seventy-five per cent of all mail posted is dumped into the postoffice at the end of each day, straining the human postal machine almost to the breaking point. An accumulation of unsettled claims for indemnity on lost and damaged parcels has been reduced from 175,000 in March to a condition that will be current in thirty days more. Fundamental changes are being made daily in the operation of the service.

When we took hold of the administration of the postoffice it seemed to me that the field in which the greatest progress could be made in the shortest time was in the welfare of the men and women engaged in the work. I have felt very strongly and have tried to express the hope that all employees will feel that they are to work with me, not for me, in this service

to the public. I have promised and promise you now that in return your labor shall be regarded in common with my own, not as a commodity but as the result of the striving of living human beings. I would reiterate that the idea that labor is a commodity was abandoned 1921 years ago last Easter. This does not imply, of course, that we are to be lax or slothful; the very opposite is true. It means that we are expected to perform our duties faithfully just as the President performs his.

I am determined in all seriousness to go to great lengths to develop in the department the spirit that we are 300,000 partners, for such is the fact. The working conditions in many places are unsatisfactory and a large amount of improvement must be made in that direction. There is no doubt about the quality of the postal employees—there is no better set of men and women in the world. They have the brain and they have the hand to do this job well, and once again their full heart has come into the service.

We are trying to develop, as you know, a Welfare Department, just as definite in its duties and certain in its functioning as the Fiscal Department or any other department. The whole matter of this welfare effort is tremendous. It must be, however, of your and not my development. Paternalism is as obnoxious to me as it is to you. The really successful welfare movements are those developed in the business itself among those who are most intimately concerned. I would build a welfare organization solely for the purpose of supplementing and encouraging the program of the employees.

Every other large industry in the country has adopted welfare measures. This humanizing business is not original. It has been the definite trend of American business for the past generation. Just how far we can go with it in the Postoffice Department I do not know, but it is certain that very much can be done, and not in any sense in lieu of wages. All the things that are done successfully for the welfare of the employees in other successful business must be done as far as possible in this, the greatest of all business. Why it has not been seriously attempted before in the Postoffice Department I don't know. Uncle Sam must be just as good a boss as any private employer. It is certainly one of the very definite purposes

of the days just ahead. If we can improve the spirit and actual conditions of the 300,000 men and women who do this job, that in itself is an accomplishment, and it is just as certain to bring a consequential improvement in the service as tomorrow's sun. I have said, and I reiterate in the dignity and responsibility of this presence, that it is my opinion that the postal establishment is most certainly not an institution for profit nor for politics, but an institution for service, and it is the President's most earnest purpose to improve that service. You can't expect men and women to give service if they are to be the shuttlecocks of politics. It would be my very greatest satisfaction if in this effort I contribute a little to the end that the postal service be made more and more a desirable career into which the young can enter with a certainty that their service will be performed under reasonable conditions for a reasonable wage and for an appreciative people. The men and women who constitute the great army of employees are doing a distinct government and public service and they are entitled to an appreciation commensurate with the efficacy and importance of that service. The first element of a proper appreciation is to make certain that honest and efficient service shall be honestly recognized and that the merit system shall control without any subterfuge under any circumstances whatsoever. I have said, and I repeat, that my purposes are: First, to make such rectifications as in all decency and fairness must be made to assure a square deal; second, to strengthen and broaden the Civil Service at every point wherever possible to the end that merit may govern; third, with absolute fidelity to put the entire service upon a purely business basis so sound and so serviceable that no political party will ever again dare attempt to ignore or evade it ultimately.

That honest and efficient labor should have a voice in those phases of the management of business which concern working conditions and a living wage commensurate with the value of the service is but common justice. The practical application of this general idea to the postoffice is a problem which cannot be worked out except with the coöperation of the postmaster—possibly with local councils in the larger postoffices composed of representatives of employees selected by them,

and the postmaster or his representative. The idea might well be developed in order that employees may have an opportunity to express their opinion in open council as to the improvement of working conditions and, if possible, settle these questions locally. We have thought that it might be well to organize a national council composed of representatives of the employees, selected by them, who will meet in Washington periodically to discuss with the welfare head matters of importance when it is a question of national character.

And now, my friends, for us in the postal service here is the problem and here is the solution. It is the fundamental principle of democracy that we shall help one another, that all citizens shall coöperate in the work of government. And the work of government is not merely electing men to Congress to make laws and electing a President to execute them. It is just as truly government work to collect the mails, to transmit them to their destination, and to redistribute them and deliver them, and it is fitting for every citizen of our country to regard himself as practically interested in that work.

Teamwork all around, my friends, is the magician's wand that alone can make our governmental services what they should be and what they can be and what they will be if only that means is applied. You may regard me, if you will, as the wheel horse of the team, to do the hardest work, that's what I'm in this office for. And remember that it is a partnership proposition, all recognizing that we are engaged in the same transcendent problem with each other and with the public, the solution of which is to be found in the best postoffice service and the best government in all the world.

To you all, as fellow citizens of our common country I plead for a patriotism in peace as well as in war. I insist that we have not merely that patriotism born of extremities, which burns in the souls of men only when their country is in danger, not the patriotism which is stirred only by martial music —but a patriotism which moves men to make their country's welfare their own business and every day to realize what we owe to the country in which we live, and which moves us to discharge that debt by aiding in every way we can to make and keep conditions right in this country.

The task ahead will measure the brain and heart of America. The guidance is in good hands. From the time of the nomination until now, I have discussed matters with President Harding in as serious a manner as men can talk, and of as important subject matters as can be discussed. President Harding possesses just those vital qualities of mind and heart necessary to-day and in the time ahead. His poise of mind, his soundness of judgment, his hold on fundamentals, his appreciation of the needs of to-day and of to-morrow, his love of the people from whom he came and of whom he is one, and his faith in them; his magnificent grasp of large affairs, his great native ability and his training in statesmanship, his regard for the opinion of others, his experience and success in the handling of men, his proper appreciation of his country's position as a responsible factor in the world's future, but with the fullest realization of the absolute importance of our own supreme nationalism, his sterling Americanism, his righteous character and manhood, and withal his thorough humanness, all qualify him in the most exceptional degree for his tremendous responsibilities. The country will love him, trust him and follow him, just as all who know him love and trust him; and the world will honor him.

He is in no sense a partisan President, he is the President of us all—with enough Democrats voting for him to give them a fifty per cent equity in him—and we may look with the most complete confidence to his performance. He means very, very much, indeed to the country's welfare.

It is a great country. I have been about a good deal of late. You have been up and down your stairway at home a hundred thousand times, but you can't tell the number of its steps. You can send a man there once to count the steps, and he is a better witness as to the number of steps than you are. I have been out in the late months all over, and I have counted the steps. The manhood and womanhood of America is sound. A little while before election I got off a train at Bangor, Maine, and the porter, handling a pretty large bag which I carry, said "How'd do, Mr. Hays." I was pleased, and I looked at him in surprise. He said, "Yes, I know you. I put this grip off the train the other day at Albuquerque, New Mexico." I

have counted the steps, and the manhood and womanhood of America is sound. Everywhere, everywhere is the spirit of America; everywhere, everywhere, it is the manhood and womanhood of this republic. Often, in various places we would take walks on Sunday, when people are really more nearly as they are, and just see folks everywhere, and everywhere the churches, everywhere the schoolhouses, everywhere the fathers and mothers walking to worship, with the children running ahead with their little starched dresses and little pink ribbons, everywhere the same look ahead, everywhere the evidence of hope and the same aspirations, practicing the faith of the fathers—all reaching upward, upward all of them, upward to the same God. All good, all ahead, all up, and up, and up. I tell you the manhood and womanhood of America is sound. It is a great, great country. And it is all ahead of us.

The stress of late days has strained all overmuch. A little patience may be well, and well may each look to his own industry and thrift, well may each look to his own conscience and his own moral responsibility. Let us remember that one man is only better than another when he behaves himself better. We all go up or all go down together. Let us give every well behaved man and woman in this country their equality of opportunity, and then let us require from them their full measure of accountability. Live and let live is not enough—we must live and help live in America. It will be all right. No exigency, however, serious, will present to this nation an unsurmountable crisis. Every problem is solvable. Readjustment demands the best there is in us as a nation mentally and spiritually. We shall adhere to the true, clean thing, and never abandon our high ideals. This nation is a success; it is still the hope of the world; it must be made a yet greater blessing to the sons of men.

I am reminded of a poem in the *Saturday Evening Post* a little while ago, in dialect—which I cannot imitate—but which was called "Perspective," and it went like this:

> You look 'way down 'long de railroad track
> And you scratch yer crown; and your brain yer rack.
> "By gum," y' say, "How de train don' gwine
> To make its way where de two rails jine?"

On flies de train—for it don't appear,
To bodder de brain ob de engineer.
And y' sure to find wid de nearer sight
Dat de rails ain't jined and de track's all right.

Jes' so we all, in de future far,
See de path get small. How we gwine past dar?
But we 'proach de place and it wider seem
And we find dere's space for a ten-mule team.

PAUL HENDERSON

AIRCRAFT FOR INDUSTRY

The speeches devoted to business in "Modern Eloquence" record many new enterprises and adventures. The following address by Mr. Paul Henderson, general manager of the National Air Transport, Inc., was delivered at the thirteenth annual convention of the National Association of Manufacturers of the United States, at St. Louis, October, 1925. It deals with an infant industry and offers a new program. No one can now imagine the feelings with which the reader of 1950 may review this address. Mr. Henderson was born in Lyndon, Kansas, in 1884, and was appointed Second Assistant Post Master General, in charge of postal transportation, in 1922.

Mr. President and Gentlemen: I consider it a real privilege to talk for a few minutes on the subject of aviation to a representative group of American business men, for the very simple reason that aviation, unless I am a poor reader of the signs of the times, is about due for its long-looked-for and often heralded arrival as an agent of commercial transportation.

It is a privilege to explain in a little detail some of the outstanding facts relative to this new type of transportation, and that privilege becomes a particularly inviting one when it makes possible the presenting of these facts to a group of men such as is here assembled to-day.

There is probably no subject upon which there is as much misinformation as there is on the subject of aviation. To my mind, there is no subject more interesting. This last may seem like an exaggeration, but I think it is a statement capable of proof.

The airplane was born in America. The first heavier-than-air flight in the world took place in the United States and was conceived and developed in the minds of two American brothers.

You all know the history of the Wright Brothers' early struggles and ultimate success. You all know that they had to go to Europe to get the real financial backing which was necessary to round out their work. They taught Europe to fly.

War's Impetus to Aviation

When the war came on, European countries saw in the airplane a potential weapon of great possibility. Intensive development of aircraft took place during the hysterical years of the war. We in America did our share of this development. I think perhaps we did a little better job than anybody else in the matter of technical development and production of aircraft.

There has been much scolding of the Government for its war-time aeronautical activities. I think that instead of being scolded, the Government should be congratulated upon the success which it made. Starting out with nothing, in less than two years, we manufactured literally tens of thousands of airplanes, airplane engines, airplane instruments, etc., etc. It is true that practically none of this equipment ever reached the zone of war. At any rate, the war finished with aviation advanced more than it might have been expected to advance in fifty years of ordinary peace-time development.

The necessity and press of the war brought forth, not only here, but all over the world, a tremendous technical step forward in aviation. As far as the United States is concerned, there it ended. Nothing much has happened in this country worthy of presenting, since the war, in aviation circles. The Army and the Navy have been busy wearing out the airplanes which were on hand when the war was finished. Now they have them about worn out.

The Post Office Department, using certain of these same war-time airplanes, really developed a remarkable transcontinental service between New York and San Francisco. It reached its ultimate in the shape of development with the first of last July, when the service undertook, in addition to the transcontinental operation, an overnight operation between New York and Chicago. Air mail now leaves New York for San

Francisco every morning of the week, arriving in San Francisco late the following afternoon. Air mail now leaves San Francisco early each morning for New York, arriving in New York the afternoon of the following day. Air mail now leaves New York at nine-thirty at night for Chicago, arriving there at five o'clock in the morning, with a corresponding eastbound schedule from Chicago to New York.

Europe Subsidizing Aviation

I shall always consider it a privilege to have been identified with this air mail development, just as I now consider it a privilege to be charged with the management of the first sizeable commercial effort in this country to put aircraft to practical every-day use.

In Europe, the commercial use of airplanes in the carrying, not only of mail and express, but also of passengers, has developed rather effectively and definitely since the war closed, until now we find Europe crossed and criss-crossed with operating air lines carrying passengers and goods. This looks fine, and is fine, until we learn that all of this is made possible only by tremendous governmental subsidy. There isn't an air line operating in Europe which could succeed for six weeks without subsidy. Why has Europe been so keen for these subsidized lines? The answer is obvious. Europe sits in constant fear of war. European military men know that the airplane will be the controlling factor in the next war. Through these subsidized commercial lines, Europe is keeping itself supplied with aircraft, trained pilots, and air organizations, ready at a moment's notice to be put into uniform and put to work as either offensive or defensive agencies of war. Whatever Europe may pay as subsidy to commercial air lines is simply being paid as insurance against the possibility of war.

The importance of aircraft and a possible future war is very definite to us here in America. You have read much in the newspapers lately of criticism of the existing Army and Navy air service. I am sorry to say that a great deal of what you have read and of what the investigating committees have

been told is true. America is sadly lacking in proper aeronautical preparation from a national defense point of view. If our potential enemies were as near to us as European countries are to each other, this would be a most serious condition, but thanks to a kind Providence, we are separated by many miles of ocean from any sizeable country that might think of engaging with us in war. This distance is our safeguard, but even the distance between Continental Europe and America is fast shrinking. It is not improbable that, in the next few months, aircraft will be built which could, if necessary, cross the Atlantic and still have enough cruising radius left to bomb our eastern seaboard.

Commercial Use of Aeroplanes

So we, as a nation, must not close our eyes to the war-like possibilities of aviation. Rather, it seems to me, we must open our eyes to the commercial possibilities of this new vehicle, in an effort to get as many air craft at work in everyday commerce as is possible in the United States. First of all, our interest in this attempt should be prompted by the fact that aircraft offers to business men and industrial operators the most rapid transportation ever devised. Certainly, this rapid transportation for mail and merchandise will have its value in the industrial world and will fit into the general transportation scheme of things in the United States with profit to those who use it. Second, our interest should be prompted by the fact that this development of a commercial use of aircraft will automatically assist us in a proper preparation for defense in the air.

A few days ago, I was asked to appear as a witness before the President's Aircraft Investigating Committee in Washington. Among other things, my testimony before that Committee included a statement as follows:

In a few months more than ten years, I find myself converted from a skeptic to an enthusiast, on the subject of aviation for the purposes of commerce. I am confident that the National Air Transport, Inc., will succeed.

Commercial aviation in America is not looking for, nor ex-

pecting a subsidy. In that respect, it may be contrasted with the European efforts. There, all air lines exist financially by virtue of subsidy.

Commercial aviation in America does, however, need Federal sympathy and understanding, and active Government cooperation. The Government, on the other hand, needs commercial aviation, needs it as a background for its national defense. As commercial use of aircraft develops, so will the problems of national defense diminish from an aeronautical point of view. The country will become air-wise. Commercial organizations and equipment will produce a physical reserve. Aircraft factories will have profitable peace-time employment. We, as a nation, will become a going concern in the air.

The Federal Government has recognized its obligations to all types of transportation. The railroads, the highways, as well as the seas, have all been beneficiaries of Government interest, Government regulation, and, in many cases, Government aid. The Government's responsibility to commercial aviation is, in my opinion, a very definite one, and it is threefold.

I believe, first, that the Government should take over existing inter-state airways, and lay out and equip new airways, and maintain them for the benefit of all who wish to properly navigate over them.

For Government Regulation

Second, I believe that the Government should regulate interstate air traffic; to this extent, I believe that the Government should prohibit the flying of any aircraft by an unqualified pilot. This will mean Government inspection of aircraft and their power plants, and Government licensing of pilots.

Third, I believe that the Government should contract for all carriage of its mail in the air, where such carriage in the air is of economic value.

Each of these three subjects may need a little enlargement. When I say that it is my opinion that the Government should

take over and maintain these airways, and lay out, equip and maintain new airways, I mean by an airway, those aids of navigation which will have to exist between the terminal fields. I mean the emergency fields which should be located at intervals of approximately twenty-five miles, but I do not mean the terminal field. I believe that terminal fields should be, and will be, provided by the municipalities. Excellent precedents for this approach to that problem will be found in the action of Cleveland, Boston, St. Louis, St. Joseph, Mo.; Chicago and many other cities. The preparation on the ground between these municipalities should be provided by the Federal Government.

At the moment, air navigation at night is only possible by the aid of powerful beacon lights, routing lights, etc. As the art develops, it is entirely probable that the value which we now place on these lights will be minimized and that directional radio and other electrical means of navigation will come to the front. In connection with its airway work, the Government should continue to experiment in the matter of lights, directional radio and other aids to navigation.

In the matter of regulation, because of the newness of this art, and because of the technical make-up of aircraft, great care will have to be exercised in the matter of inspection of not only all aircrafts, but of pilots. Common sense rules will have to prevail if this regulation is not to be hampering in its character; regulation of a liberal nature, necessary to eliminate the flying of unsafe machines, is called for. (This one thing is responsible for more of the accidents in the air than any other one contributing factor.)

Unless Congress enacts some such law as that suggested in the foregoing, development of commercial aeronautics will be hampered. Inter-state operation of aircraft now is, from a legal point of view, an unknown thing. We need this law to establish us legally. We need it to establish safe, regular operation.

Steamships with improper power plants, or commanded by inexperienced officers, are not permitted to travel the seas. Aircraft not airworthy or aircraft not in the hands of a competent operative should not be permitted to travel anywhere.

Dallas-Chicago Route

I am optimistic as to the action which Congress will take in the matter of aeronautics this winter. In fact, I am so optimistic that I am arranging now for the National Air Transport to start operating within a few weeks, between Dallas, Texas and Chicago. We expect to leave Dallas just after breakfast in the morning and arrive in Chicago about seven-thirty in the evening. We expect this route to bring us some business, but we do not expect it to become an outstanding success until we are able to connect it up with New York. Our ultimate plan is to leave Dallas, Texas, in the morning about eight o'clock and arrive in New York the following morning about five o'clock, in a continuous movement.

Experience has taught us that, from a technical and practical point of view, this is an entirely feasible thing to do. I cannot but believe that such a route as this, operating regularly, will attract mail and package traffic of the American business man to a point where we may, with some enthusiasm, look forward to its financial success. If this route can succeed, others can succeed. If this route and others may be established, and may succeed, then it is not too much to expect that we will soon have a rather nation-wide operation of commercial air lines, going along with some profit to their owners in every-day commerce.

Look five years ahead and assume that this has happened. You will then have not only the aircraft and the pilots and the trained men engaged in these day-to-day operations. You will have the airplane factories in which the flying machines for these routes are being built and overhauled and maintained. You will have the engine factories turning out the engines. You will have a going aircraft industry, and a going commercial use of aircraft. Once going, and once over the top, as far as traffic is concerned, this sort of thing should be developed to rock along indefinitely, getting better as the art develops; and as it gets better, attracting more and more traffic, up to a point which I do not believe is more than three or four years in the future, when we will be justified in inviting passenger traffic.

I might say just there, that since I wrote this, an experiment my people have been running over a route one hundred and seventy-five miles long has given us one hundred per cent of control of an airplane from the ground by radio, that is, we have been able to set up a radio path of no width at all at its origin and one hundred and seventy-five miles from its point of origin so arranged that the pilot knows when he has left this. When he has left it, he gets two clicks in the telephone receiver, when he is to the left he gets three clicks, when he is to the right he gets four clicks, so, already, the lights which a year ago we thought were essential for night travel, are beginning to take a back place for radio.

I might also say that although my company is not at the present planning to engage in passenger carrying, our reason for not carrying passengers is not that we do not believe we can do it with safety to the passengers, but we believe we can get more dollars per pound by carrying mail and express.

Once we have reached this point, no matter what the state of preparedness of our country may be, from a purely military and naval point of view in the air, it is my contention that this commercial background will place us in a very safe position, as far as air defense is concerned.

My company was organized, as are almost all corporations, with the hope of making money, but it was organized also with the hope of being able to serve the United States along some such line as the one I have attempted to outline to you. Your sympathetic interest as business men will help us. I believe that we are entitled to your interest and your coöperation as we go along.

The National Air Transport, Inc., is a rather unique corporation. None of its stock ever has or ever will be offered for sale to the public. Its incorporators realize that aeronautics is a very definite gamble, and they are sportsmen enough to be willing to gamble with their own money.

JAMES J. HILL

THE NATURAL WEALTH OF THE LAND AND ITS CONSERVATION[1]

James J. Hill was born in Guelph, Ont., in 1838. He went from his father's farm to business in Minnesota. He soon became identified with the development of the Northwest. He established in 1870 The Red River Transportation Co. which was the first to open communication between St. Paul and Winnipeg, soon after organizing a syndicate which secured control of the St. Paul and Pacific R. R. which became part of the Great Northern system in 1890. Mr. Hill interested himself in building the Great Northern Railway extending from Lake Superior to Puget Sound with northern and southern branches and a direct steamship connection with the Orient. He was President of the Great Northern System from 1893 until 1907 when he became Chairman of the Board of Directors. He died May 29, 1916.

Mr. Hill was a man of force and vision. These qualities, which made him a great railroad builder, enabling him to amass a huge fortune, are also manifest in his speeches. The present address was given before the Conference of Governors which met in Washington in 1907.

In the movement of modern times, which has made the world commercially a small place and has produced a solidarity of the race such as never before existed, we have come to the point where we must to a certain extent regard the natural resources of this planet as a common asset, compare them with demands now made and likely to be made upon them, and study their judicious use. Commerce, wherever untrammeled, is wiping out boundaries and substituting the world relation of demand and supply for smaller systems of local economy. The changes of a single generation have brought the nations of the earth closer together than were the states of the Union

[1] Printed from "Highways of Progress" with the kind permission of the publishers, Doubleday Page & Co.

at the close of the Civil War. If we fail to consider what we possess of wealth available for the uses of mankind, and to what extent we are wasting a national patrimony that can never be restored, we might be likened to the directors of a company who never examined a balance sheet.

The sum of resources is simple and fixed. From the sea, the mine, the forest and the soil must be gathered everything that can sustain the life of man. Upon the wealth that these supply must be conditioned forever, so far as we can know, not only his progress but his continued existence on earth. How stands the inventory of property for our own people? The resources of the sea furnish less than 5 per cent of the food supply, and that is all. The forests of this country, the product of centuries of growth, are fast disappearing. The best estimates reckon our standing merchantable timber at less than 2,000,000,000,000 feet. Our annual cut is about 40,000,000,000 feet. The lumber cut rose from 18,000,000,000 feet in 1880 to 34,000,000,000 feet in 1905; that is, it nearly doubled in twenty-five years. We are now using annually 500 feet board measure of timber per capita, as against an average of sixty feet for all Europe. The New England supply is gone. The Northwest furnishes small growths that would have been rejected by the lumberman thirty years ago. The South has reached its maximum production and begins to decline. On the Pacific Coast only is there now any considerable body of merchantable standing timber. We are consuming yearly three or four times as much timber as forest growths restore. Our supply of some varieties will be practically exhausted in ten or twelve years; in the case of others, without reforesting, the present century will see the end. When will we take up in a practical and intelligent way the restoration of our forests?

Turning now to one of the only two remaining sources of wealth, the mine, we find it differing from the others in an important essential. It is incapable of restoration or recuperation. The mineral wealth stored in the earth can be used only once. When iron and coal are taken from the mine, they cannot be restored; and upon iron and coal our industrial civilization is built. When fuel and iron become scarce and high-priced, civilization, so far as we can now foresee, will suffer

as man would suffer by the gradual withdrawal of the air he breathes.

The exhaustion of our coal supply is now in the indefinite future. The startling feature of our coal production is not so much the magnitude of the annual output as its rate of growth. For the decade ending in 1905 the total product was 2,832,402,746 tons, which is almost exactly one-half the total product previously mined in this country. For the year 1906 the output was 414,000,000 tons, an increase of 46 per cent on the average annual yield of the ten years preceding. In 1907 our production reached 470,000,000 tons. Fifty years ago the annual per capita production was a little more than one-quarter of a ton. It is now about five tons. It is but eight years since we took the place of Great Britain as the leading coal-producing nation of the world, and already our product exceeds hers by over 43 per cent and is 37 per cent of the known production of the world. Estimates of coal deposits still remaining must necessarily be somewhat vague, but they are approximately near the mark. The best authorities do not rate them at much over 2,000,000,000,000 tons. If coal production continues to increase as it has in the last ninety years, the available supply will be greatly reduced by the close of the century. Before that time arrives, however, the use of lower grades and mines of greater depth will become necessary; making the product inferior in quality and higher in price. Already Great Britain's industries have felt the check from a similar cause, as shown in her higher cost of production. Our turn will begin probably within a generation or two from this time. Yet we still think nothing of consuming this priceless resource with the greatest possible speed. Our methods of mining are often wasteful; and we not only prohibit our industries from having recourse to the coal supplies of other countries, but actually pride ourselves upon becoming exporters of a prime necessity of life and an essential of civilization.

The iron industry tells a similar story. The total of iron ore mined in the United States doubles about once in seven years. It was less than 12,000,000 tons in 1893, over 24,000,000 tons in 1899, 47,750,000 tons in 1906 and over 52,000,000 tons in 1907. The rising place of iron in the world's life is the most

impressive phenomenon of the last century. In 1850 the pig iron production of the United States amounted to 563,758 tons, or about fifty pounds per capita. Our production now is over 600 pounds per capita. We do not work a mine, build a house, weave a fabric, prepare a meal or cultivate an acre of ground under modern methods without the aid of iron. We turn out over 25,000,000 tons of pig iron every year, and the production for the first half of 1907 was at the rate of 27,000,000 tons. This is two and one-half times the product of Great Britain. It is nearly half the product of the whole world. And the supply of this most precious of all the metals is so far from inexhaustible that it seems as if iron and coal might be united in their disappearance from common life.

A few years ago a Swedish geologist prepared for his Government a report which stated that the entire supply of the iron ore in the United States would be exhausted within the present century. The United States Geological Survey declared this an over-statement; but here is the conclusion of its own report, after a careful examination of this question in the light of the best authorities. I quote the official published document: "Assuming that the demand for iron ore during the present century may range from 50,000,000 to 100,000,000 tons per year, the Lake Superior district would last for from twenty-five to fifty years more, if it supplied the entire United States. But counting on the known reserves elsewhere in the United States, the ore will last for a much longer period, though, of course, it must necessarily show a gradual but steady increase in value and in cost of mining, along with an equally steady decrease in grade." The most favorable view of the situation forces the conclusion that iron and coal will not be available for common use on anything like present terms by the end of this century; and our industrial, social and political life must be readjusted to meet the strains imposed by new conditions.

We now turn to the only remaining resources of man upon this earth, which is the soil itself. How are we caring for that, and what possibilities does it hold out to the people of future support? We are only beginning to feel the pressure upon the land. The whole interior of this continent, aggregating more than 500,000,000 acres, has been occupied by

settlers within the last fifty years. What is there left for the next fifty years? Excluding arid and irrigable areas, the latter limited by nature, and barely enough of which could be made habitable in each year to furnish a farm for each immigrant family, the case stands as follows: In 1906 the total unappropriated public lands in the United States consisted of 792,000,000 acres. Of this area the divisions of Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico and Wyoming contained 195,700,000 acres of surveyed and 509,000,000 acres of unsurveyed land. Little of Alaska is fitted for general agriculture, while practically all of the rest is semi-arid land, available only for grazing or irrigation. We have, subtracting these totals, 50,000,000 acres of surveyed and 36,500,000 acres of unsurveyed land as our actual remaining stock. And 21,000,000 acres were disposed of in 1907. How long will the remainder last? No longer can we say that "Uncle Sam has land enough to give us all a farm."

Equally threatening is the change in quality. There are two ways in which the productive power of the earth is lessened: first, by erosion and the sweeping away of the fertile surface into streams and thence to the sea; and, second, by exhaustion through wrong methods of cultivation. The former process has gone far. Thousands of acres in the East and South have been made unfit for tillage. North Carolina was, a century ago, one of the great agricultural states of the country and one of the wealthiest. To-day as you ride through the South you see everywhere land gullied by torrential rains, red and yellow clay banks exposed where once were fertile fields; and agriculture reduced because its main support has been washed away. Millions of acres, in places to the extent of one-tenth of the entire arable area, have been so injured that no industry and no care can restore them.

Far more ruinous, because universal and continuing in its effects, is the process of soil exhaustion. It is creeping over the land from East to West. The abandoned farms that are now the playthings of the city's rich or the game preserves of patrons of sport bear witness to the melancholy change. New Hampshire, Vermont, Northern New York, show long lists of them. In Western Massachusetts, which once sup-

ported a flourishing agriculture, farm properties are now for sale for half the cost of the improvements. The same process of deterioration is affecting the farm lands of Western New York, Ohio and Indiana. Where prices of farms should rise by increase of population, in many places they are falling.

Practically identical soil conditions exist in Maryland and Virginia, where land sells at from $10 to $30 an acre. In a hearing before an Industrial Commission the chief of the Bureau of Soils of the Department of Agriculture said: "One of the most important causes of deterioration, and I think I should put this first of all, is the method and system of agriculture that prevails throughout these states. Unquestionably the soil has been abused." The richest region of the West is no more exempt than New England or the South. The soil of the West is being reduced in agricultural potency by exactly the same processes which have driven the farmer of the East, with all his advantage of nearness to markets, from the field.

Within the last forty years a great part of the richest land in the country has been brought under cultivation. We should, therefore, in the same time, have raised proportionately the yield of our principal crops per acre, because the yield of old lands, if properly treated, tends to increase rather than diminish. The year 1906 was one of large crops, and can scarcely be taken as a standard. We produced, for example, more corn that year than had ever been grown in the United States in a single year before. But the average yield per acre was less than it was in 1872. We are barely keeping the acre product stationary. The average wheat crop of the country now ranges from 12½, in ordinary years, to 15 bushels per acre in the best seasons.

But the fact of soil waste becomes startlingly evident when we examine the record of some states where single cropping and other agricultural abuses have been prevalent. Take the case of wheat, the mainstay of single crop abuse. Many can remember when New York was the great wheat-producing state of the Union. The average yield of wheat per acre in New York for the last ten years was about 18 bushels. For the first five years of that ten-year period it was 18.4 bushels, and for the last five 17.4 bushels. In the farther West, Kansas

takes high rank as a wheat producer. Its average yield per acre for the last ten years was 14.16 bushels. For the first five of those years it was 15.14 and for the last five 13.18. Up in the Northwest, Minnesota wheat has made a name all over the world. Her average yield per acre for the same ten years was 12.96 bushels. For the first five years it was 13.12 and for the last five 12.8. We perceive here the working of a uniform law, independent of location, soil or climate. It is the law of a diminishing return due to soil destruction. Apply this to the country at large, and it reduces agriculture to the condition of a bank whose depositors are steadily drawing out more money than they put it.

What is true in this instance is true of our agriculture as a whole. In no other important country in the world, with the exception of Russia, is the industry that must be the foundation of every state at so low an ebb as in our own. According to the last census the average annual product per acre of the farms of the whole United States was worth $11.38. It is little more than a respectable rental in communities where the soil is properly cared for and made to give a reasonable return for cultivation. Nature has given to us the most valuable possession ever committed to man. It can never be duplicated, because there is none like it upon the face of the earth. And we are racking and impoverishing it exactly as we are felling the forests and rifling the mines. Our soil, once the envy of every other country, the attraction which draws millions of immigrants across the seas, gave an average yield for the whole United States during the ten years beginning with 1896 of 13.5 bushels of wheat per acre. Austria and Hungary each produced over 17 bushels per acre, France 19.8, Germany 27.6 and the United Kingdom 32.2 bushels per acre. For the same decade our average yield of oats was less than 30 bushels, while Germany produced 46 and Great Britain 42. For barley the figures are 25 against 33 and 34.6; for rye 15.4 against 24 for Germany and 26 for Ireland. In the United Kingdom, Belgium, The Netherlands and Denmark a yield of more than 30 bushels of wheat per acre has been the average for the past five years.

When the most fertile land in the world produces so much less than that of poorer quality elsewhere, and this low yield

shows a tendency to steady decline, the situation becomes clear. We are robbing the soil, in an effort to get the largest cash returns for each acre of ground in the shortest possible time and with the least possible labor. This soil is not mere dead matter, subject to any sort of treatment with impunity. Chemically, it contains elements which must be present in certain proportions for the support of vegetation. Physically, it is made up of matter which supplies the principal plant food. This food, with its chemical constituents in proper admixture, is furnished by the decomposition of organic matter and the disintegration of mineral matter proceeding together. Whatever disturbs either factor of the process, whatever takes out of the soil an excess amount of one or more of the chemical elements upon which plant growth depends, ends in sterility. Any agricultural methods that move in this direction mean soil impoverishment; present returns at the cost of future loss; the exhaustion of the land exactly as the human system is enfeebled by lack of proper nourishment.

Our agricultural lands have been abused in two principal ways; first, by single cropping, and, second, by neglecting fertilization. It is fortunate for us that nature is slow to anger, and that we may arrest the consequence of this ruinous policy before it is too late. In all parts of the United States, with only occasional exceptions, the system of tillage has been to select the crop which would bring in most money at the current market rate, plant that year after year, and to move on to virgin fields as soon as the old farm rebelled by lowering the quality and quantity of its return. It is still the practice, although diversification of industry and the rotation of crops have been urged for nearly a century and are to-day taught in every agricultural college in this country.

The demonstration of the evils of single cropping is mathematical in its completeness. At the experiment station of the Agricultural College of the University of Minnesota they have maintained 44 experimental plots of ground, adjoining one another, and as nearly identical in soil, cultivation and care as scientific handling can make them. On these have been tried and compared different methods of crop rotation and fertilization, together with systems of single cropping. The results

of ten years' experiment are available. On a tract of good ground sown continuously for 10 years to wheat, the average yield per acre for the first five years was 20.22 bushels and for the next five 16.92 bushels. Where corn was grown continuously on one plot, while on the plot beside it corn was planted but once in five years in a system of rotation, the average yield of the latter for the two years it was under corn was 48.2 bushels per acre. The plot where corn only was grown gave 20.8 bushels per acre for the first five and 11.1 bushels for the second five of these years, an average of 16 bushels. The difference in average of these two plots was 32.2 bushels, or twice the total yield of the ground exhausted by the single-crop system. The corn grown at the end of the ten years was hardly hip high, the ears small and the grains light. But the cost of cultivation remained the same. And the same is true of every other grain or growth when raised continuously on land unfertilized. We frequently hear it said that the reduction in yield is due to the wearing out of the soil. The fact is that soils either increase or maintain their productivity indefinitely under proper cultivation.

The remedies are as well ascertained as is the evil. Rotation of crops and the use of fertilizers act as tonics upon the soil. The more careful and thorough the tillage, the less the waste and the speedier the restoration of soil values. We might expand our resources and add billions of dollars to our national wealth by conserving soil resources, instead of exhausting them.

Every intelligent and progressive farmer will join stock raising with grain raising. Nature has provided the cattle to go with the land. There is as much money in live stock as there is in grain. Looked at in any way, there is money in live stock; money for dairy products, money for beef, money for the annual increase, and most money of all for the next year's crop when every particle of manure is saved and applied to the land.

We need not consider at present really intensive farming, such as is done by market gardeners with high profit, or such culture as in France, in Holland, in Belgium and in the island of Jersey produces financial returns per acre that seem

almost beyond belief. What our people have to do is to cover less ground, cultivate smaller farms so as to make the most of them, instead of getting a scant and uncertain yield from several hundred acres, and raise productivity by intelligent treatment to twice or three times its present level.

There is more money in this system. The net profit from an acre of wheat on run-down soils is very small; consequently decreasing the acreage of wheat under certain conditions will not materially decrease profits. Here are some reliable estimates. The price of wheat is given from the United States Department of Agriculture Yearbook, average for ten years:

Yield	Price	Market value per acre	Cost of production including rent	Net profit or loss
20	$0.638	$12.76	$7.89	+$4.87
16	"	10.21	"	+ 2.32
12	"	7.66	"	— 0.23
10	"	6.38	"	— 1.51
8	"	5.10	"	— 2.79

From the above table it will be seen that as large a net profit is realized from one crop of 20 bushels per acre as from two crops of 16 bushels; and that a 12-bushel crop or less yields a net loss. It is safe conclusion that 75 acres of land, growing a crop of clover every fourth year, will yield a larger net profit than will 100 acres sown to grain continually. A small field of eight acres of clover in the Red River valley in 1907 yielded 42 bushels, worth over $60 per acre from the sale of seed.

Nearly 36 per cent of our people are engaged directly in agriculture. But all the rest depend upon it. In the last analysis, commerce, manufactures, our home market, every form of activity runs back to the bounty of the earth by which every worker, skilled and unskilled, must be fed and by which his wages are ultimately paid. The farm products of the United States in 1906 were valued at $6,794,000,000 and in 1908 at $7,778,000,000. All of our vast domestic commerce, equal in value to the foreign trade of all the nations combined, is supported and paid for by the land. Of our farm area only one-half is improved. It does not produce one-half of what

it could be made to yield; not by some complex system of intensive culture, but merely by ordinary care and industry intelligently applied. It is the capital upon which alone we can draw through all the future, but the amount of the draft that will be honored depends upon the care and intelligence given to its cultivation. Nowhere in the range of national purposes is the reward for conservation of a national resource so ample. Nowhere is the penalty of neglect so threatening.

The pressure of all the nations upon the waste places of the earth grows more intense as the last of them are occupied. We are approaching the point where all our wheat product will be needed for our own uses, and we shall cease to be an exporter of grain. There is still some room in Canada, but it will soon be filled. The relief will be but temporary. Our own people, whose mineral resources will by that time have greatly diminished, must find themselves thrown back upon the soil for a living. If continued abuse of the land should mark the next 50 years as it has the last, what must be our outlook?

Even the unintelligent are now coming to understand that we cannot look to our foreign trade for relief from future embarrassment. Our total exports, about one-fourth in value of the products of our farms, and destined to shrink as consumption overtakes production, consist to the extent of more than 70 per cent of articles grown on the soil or directly sustained by it, such as live stock, or made from soil products, such as flour. Of all the materials used in manufacture in this country, 42 per cent are furnished by the soil. We shall have less and less of this agricultural wealth to part with as population increases. And as to enlarging greatly our sale of manufactured products in the world's markets, it is mostly a dream. We cannot finally compete there, except in a few selected lines, without a material lowering of the wage scale at home and a change in the national standard of living which our people are not ready to accept without a struggle. When capital cannot find a profit there will be no money for the payrolls of an unprofitable business. Doubtless as we grow we shall buy more and sell more; but our main dependence half a century ahead must be upon ourselves. The nation can no more escape the operation of that law than can the man.

Not only the economic, but the political future is involved. No people ever felt the want of work or the pinch of poverty for a long time without reaching out violent hands against their political institutions, believing that they might find in a change some relief from their distress. Although there have been moments of such restlessness in our country, the trial has never been so severe or so prolonged as to put us to the test. It is interesting that one of the ablest men in England during the last century, a historian of high merit, a statesman who saw active service and a profound student of men and things, put on record his prophecy of such a future ordeal. Writing to an American correspondent 50 years ago, Lord Macaulay used these words:

> As long as you have a boundless extent of fertile and unoccupied land your laboring population will be found more at ease than the laboring population of the Old World; but the time will come when wages will be as low and will fluctuate as much with you as they do with us. Then your institutions will be brought to the test. Distress everywhere makes the laborer mutinous and discontented and inclines him to listen with eagerness to agitators who tell him that it is a monstrous iniquity that one man should have a million and another cannot get a full meal. . . . The day will come when the multitudes of people, none of whom has had more than half a breakfast or expects to have more than half a dinner, will choose a legislature. Is it possible to doubt what sort of a legislature will be chosen? . . . There will be, I fear, spoliation. The spoliation will increase the distress; the distress will produce fresh spoliation. . . . Either civilization or liberty will perish. Either some Cæsar or Napoleon will seize the reigns of government with a strong hand or your republic will be as fearfully plundered and laid waste by barbarians in the twentieth century as the Roman Empire in the fifth.

We need not accept this gloomy picture too literally, but we have been already sufficiently warned to prevent us from dismissing the subject as unworthy of attention. Every nation finds its hour of peril when there is no longer free access to the land, or when the land will no longer support the people. Disturbances within are more to be feared than attacks from without. Our government is built upon the assumption of a fairly contented, prosperous and happy people, capable of

ruling their passions, with power to change their institutions when such change is generally desired. It would not be strange if they should in their desire for change attempt to pull down the pillars of their national temple. Far may this day be from us. But since the unnecessary destruction of our land will bring new conditions of danger, its conservation, its improvement to the highest point of productivity promised by scientific intelligence and practical experiment, appears to be a first command of any political economy worthy of the name.

These are for us quite literally the issues of national existence. The era of unlimited expansion on every side, of having but to reach out and seize any desired good, ready provided for us by the Hand that laid the foundations of the earth, is drawing to a close. The first task is to force the facts of the situation deep into the public consciousness; to make men realize their duty toward coming generations exactly as the father feels it a duty to see that his children do not suffer want. In a democracy this is a first essential. In other forms of government one or two great men may have power to correct mistakes, and to put in motion wise policies that centuries do not unsettle. A part of the price of self-government is the acceptance of that high office and imperative duty as a whole by the people themselves. They must know, they must weigh, they must act. Only as they form and give effect to wise decisions can the nation go forward. The principle of the conservation of national resources as the foremost and controlling policy of the United States henceforth is coming to be seen by many, and must be heartily accepted by all, as the first condition, not only of continued material prosperity, but also of the perpetuation of free institutions and a government by the people. The work now being done by the Department of Agriculture and the agricultural colleges of the various states furnishes a broad and intelligent foundation upon which to build up a new era of national progress and prosperity. It calls for a wise, generous and continuing policy on the part of both federal and state governments.

If this patriotic gospel is to make headway, it must be by organized missionary work among the people, and by the people. It cannot go on and conquer if imposed from without. It must

come to represent the fixed idea of the people's mind, their determination and their hope. It cannot be incorporated in our practical life by the dictum of any individual or any officer of nation or state in his official capacity. It needs the co-operation of all the influences, the help of every voice, the commendation of nation and state that has been the strength and inspiration of every worthy work on American soil for one hundred and twenty years. Reviving thus the spirit of the days that created our Constitution, the days that carried us through civil conflict, the spirit by which all our enduring work in the world has been wrought, taking thought as Washington and Lincoln took thought, only for the highest good of all the people, we may give new meaning to our future; new luster to the ideal of a republic of living federated states; shape anew the fortunes of this country, and enlarge the borders of hope for all mankind.

HERBERT C. HOOVER

HERBERT CLARK HOOVER

AFTER-WAR QUESTIONS

Herbert Clark Hoover was born at West Branch, Iowa, in 1874, graduated from the Leland Stanford University in 1895, and has since received honorary degrees from many universities at home and abroad. His profession as an engineer led him to important work in connection with the mines, railways and metallurgic enterprises in nearly all parts of the world. At the outbreak of the War, he was in England and soon became Chairman of the Commission for Relief in Belgium. On the entrance of the United States into the War he became U. S. Food Administrator and later served in many important positions directing measures for economic relief in Europe. He was appointed Secretary of Commerce in the Cabinet of President Harding in 1921.

Mr. Hoover's remarkable leadership in the work of Belgian relief won him the admiration of the world. His great abilities as administrator have been constantly devoted to public service. His speeches attract thoughtful attention, for he always has something to say. His speech on "Food Control" is printed in Volume XII. The address which follows was made before the Los Angeles Chamber of Commerce on the 21st of March, 1922.

Captain Fredericks, My Friends: I am unable to make adequate reply to the warm, affectionate statements of your chairman, or adequate appreciation of the heartiness or warmth of your reception. I have never been able to give an expression from the heart that I feel should come to you in return for so great a tribute. It has indeed been my duty, my part of service as an American citizen, to represent the American people in great services to children and in all those services I have but represented the great heart of America.

I had thought to-day to talk to you on the general economic situation in which we find ourselves; upon some of the problems that we must meet as a government and as men; upon

some of the remedies that we must find; and upon some of the problems for which we have no remedy and yet a remedy must be found.

There is little use taking your time in recounting what we have passed through in our economic life during the last seven years. There are some phases of it, as we now look back upon it, that we did not appreciate, else we ought to have taken measures that would not have left us in so difficult a situation. But there is no use crying over spilt milk. We must face the situation to-day as we find it. We must face our problems of reconstruction and regeneration with the courage that we as Americans have faced every problem in our history, and there is nothing in these problems for which we cannot find solution.

If we were to review those economic wounds that we received during the war, and the aftermath of the war, I should of course put first and foremost the tremendous inflation which the country was compelled to undergo in order that the war could be financed. Second to that I would place the injuries we received and still continue to receive from the necessity of diverting the whole of the productive power of the nation to the production of consummable goods for the purposes of war. We were compelled as a matter of mobilization of the energies of our people to stop the construction of homes and buildings; to stop the construction and maintenance of our railways. The result is that we find ourselves to-day under-equipped with our transportation establishments, with our homes and our houses. We find ourselves over-equipped with manufacturing capacity of consumable goods and with our labor diverted to these channels.

A third difficulty arose out of the war, and that was the very serious diversion of economic currents throughout the world. Few people appreciate the results that have flowed from the collapse of Russia alone. Russia before the war was the food base of Western Europe. From Russia, the rest of Europe drew from ten to twenty million tons of food per annum. Russia exchanged its food for manufactured products and bore the same relation to Europe that the eastern part of the United States bears to the Mississippi Valley. With the collapse of

Russia, Western Europe has been required to find a new food base. It has been able to find it in the United States alone and our exports of food to-day find an increase over that before the war almost exactly in proportion to the decrease in Russia. Western Europe must exchange her products for food, and yet America, over-equipped with manufacturing capacity, is unable to absorb what Europe is able to pay with her supplies. In consequence we have a badly balanced trade and a vast extension of credit to Europe during the last three years.

And on top of all the difficulties imposed on us by the war we have to-day to pay the penalty for a fourth derangement of our economic life. That is the orgy of speculation that overwhelmed us in the post-war period. In the period immediately following the war, the world was short of consumable commodities and we entered upon the most extravagant speculation and waste this country has ever gone through. The remedy to suffering from the economic wounds of the war alone would have been sufficient to have commanded the ability of all men engaged in leadership in this country, but to add to that the orgy of speculation in the years of 1919 and 1920 has brought our country to the greatest economic crisis we have ever faced in all our history. The year 1921 has been a year of continuous liquidation. We have gone through the greatest commodity crisis in the history of the United States. We have seen a fall of nearly 50 per cent in the average value of commodities in less than eighteen months. That fall represents in consumable commodities alone, nearly thirty billions of dollars and has hit the pocketbook of every man, woman and child in the United States.

And yet, for the first time in our history, for the fourteenth business depression since the Civil War, we have gone through so great a commodity crisis—a crisis greater than any before in our history—and we have gone through it without a financial panic. We owe that security to our intelligence and foresight in the creation of the Federal Reserve System. Had we not been able to have weathered this commodity crisis without a financial panic, I doubt whether we could have recovered for years to come. But having gotten through without the vast volume of financial bankruptcy that has flowed from every

financial crisis, we are on a more secure road to recuperation. When the credit strain passed its maximum last July when credits began to become freer, we at that point passed all dangers and from that date on, our whole economic fabric has been on the mend. We have been gaining steadily in production. We have been gaining steadily in employment. We have gained steadily in financial stability and we have attained a fair amount of price stability except in a few industries.

One of the difficulties which we still face in this most terrible period of deflation is the inequality of deflation as between different industries. The agricultural industry, unorganized, has been unable to erect resistance to the economic pressures brought to bear on it. The farmers' price levels have not only receded to a point below the pre-war level, but with the failure of other price levels to adjust themselves with the same rapidity with the farmers' prices, he has been unable to purchase more than 60 per cent than he was able to purchase in pre-war times. In fact, the buying ability of the American farmer as a whole is probably to-day not over 75 per cent or 80 per cent of pre-war. It is, in fact, below the point at which production can be maintained in the agricultural industry. The solution lies more in readjustment of other prices than in any great rise in agricultural produce. But in any event, from the inequalities of our deflation comes the sense of injustice in many of our industries, that they have been called upon to suffer more than others.

It is that latter feeling that gives rise to much agitation and difficulty throughout the country, and it behooves all of us to see to it that we give such remedies of permanent character to industries that have suffered the most as will retain them in alignment with our other industries.

This being the case, it becomes the business of the Government to interest itself, to determine at what points the Government may properly offer its services in relief and at what point it may properly intervene. But before any government can take intelligent action, it first must determine the facts, and therefore immediately upon this Administration assuming power, we determined that we must be in possession of more adequate machinery for determining facts, not only within

the borders of the United States but throughout the economic world. And in order that we might secure this advice we undertook the reorganization of the Department of Commerce as being the agency that should become the economic interpreter of the American people both to and from the Government.

With that purpose in mind and as a basis of organization, we gave consideration to the character of problems that must come up for government review. In order that we should provide the equipment and machinery for the determination of fact, we recognized that department by establishing a series of divisions based first on the different commodities and different industries, and second upon a geographical basis representing different parts of the United States as well as different parts of the world.

This indeed was the one piece of reorganization in the Federal Government requiring additional appropriations, where those additional sums were consented to almost unanimously, not only by the administrative side of the Government but also by Congress, despite rigid determination to reduce public expenditure. I think we have been unanimous in the feeling that no one could competently handle the problems with which we are compelled to contend, unless we had information—adequate information—upon which to base judgment.

When we come to the questions of solution, or relationship to different problems, we have, mentally at least, divided these matters into three categories. First, those questions requiring some emergency action on the part of the Government to get over the temporary situation. Second, the more permanent action that could be taken by the Government in coöperation with either the states or communities for the remedy of economic difficulties. And third, the far larger and greater series of solutions that were to be found by the coöperative action of the industries and institutions of the country in voluntary coöperation with the Government. Ours is a people and ours is a government where, if we would preserve the initiative of the individual, where, if we would maintain the foundations of our own institutions, we must secure the remedy of economic difficulty and problems from the people themselves. Our service of government can be given in removing obstacles to commerce

and industry and can be given in bringing about voluntary coöperation between different groups to this end.

In order that I should make these generalities more clear, I thought it might interest you if I were to discuss a few of the problems with which we have been confronted and the measures we have taken and the hopes we entertain with regard to them.

The first and most difficult of problems that we have had to meet is the problem of agriculture, and of all the legislation advanced by this Administration during the past year, aside from the normal functioning of the Government, a large majority of our interest has been devoted to finding a solution of that problem. The first energy of this Administration in the Department of Commerce was exerted in study of the financial and commercial situation in agriculture, which incidentally is the whole problem. The first of the conclusions we came to was not only that it had been unduly deflated, but that this acuteness of deflation was to a considerable degree due to a loss of confidence together with a displacement of the normal world finance in carrying the burden of our annual stock of products.

We may take the cotton case as perhaps typical. Normally Europe, and our own spinners, purchased their cotton in the harvest season but Europe particularly could not finance the purchase beyond the day requirements. They then thrust upon the American farmer the burden of finance of the crop pending consumption. This in turn compelled undue selling pressure with a fall in prices below the amounts which had been advanced by the local banks in the South. With knowledge of that situation impending, the feeling on the part of the large American spinners of cotton was that a further crisis was impending and they in turn carried less than their normal share of stock. The result was a total loss of confidence in the price of cotton and with an impending new crop the price finally fell to the point where it brought some three thousand banks in the southern states into financial jeopardy and added another to the long categories of financial paralysis in the South. It seemed the first thing we must solve was the restoration of confidence in the financial background of that commodity. We

made some attempt at voluntary organization of banks but at a time when all banks were under extreme duress. And finally we decided to do the thing many of us felt we never should do, and that was to put the tax-payers' money behind the agricultural products of the United States. We believed that if we established this reserve of finance, we would create a fund of confidence from which we would never be called to find the actual money. As those of you who have followed the matter probably know, after the money was made available through legislation, the price of cotton immediately advanced from 8 cents to 18 cents a pound. The financing of the cotton crop requires some six to seven hundred millions, yet the total loans by the Government do not exceed eighteen million dollars today. We proved that the entire duress of the cotton farmer was derangement of the financial stream and the loss of confidence.

I could go through the problems of restoring the market and stability in live stock, through the measures undertaken in the matter of wheat and corn. It is mainly a problem of restoring confidence and giving insurance to the commercial community that there was not impending a great financial collapse.

These indeed are emergency measures and out of the experience we have had in connection with those measures we have learned some things that I believe must be put into our permanent fabric. Those of you who have given attention to our financial structure will recognize that we cannot subvert the Federal Reserve System to loans of duration beyond a very few months because the Federal Reserve System is the mobilization of demand deposits of the country which must be kept always available. On the other hand we have the Farm Loan Board—an institution that has done great service to the agricultural public in the matter of funds for farm mortgages. That Board provides funds for first mortgages by the mobilization of the investment capital of the country. Neither are governmental capital. Both are merely systems of mobilization of private capital.

We find as a result of our experience that the needs of the American farmer are not fully served by these institutions for

he requires longer period of loans than the Federal Reserve System can compass and these are not covered by the mortgage credit of the Farm Loan Board. He must have commodity credit to produce and market, extending from six months to three years in the case of cattle. This type of capital cannot be drawn from the Federal Reserve System, nor through the Farm Loan Board. We require the mobilization of the investment capital of the country by some device through which a volume of regular and constant credit may flow to the farmer for these purposes with the same assurance as the manufacturer enjoys to-day. We have therefore, proposed that an institution be created that will serve to fill in this lapse in the mobilization of our national finance. It is not a question of provision of government money. It is merely the erection of machinery by which the finances of the country can mobilize for the purpose of covering this particular area of credit. I mention that as being a type of the more permanent measures that must grow out of our experience since the war.

We have also a great problem of unemployment. It was supposed that last July, when we reached the point of greatest acuteness of unemployment, it exceeded six millions of men. This represented over 35 per cent of the actual working population of the United States. It became necessary for us to first take emergency measures that we might get by until the economic wounds of the country had been healed and these men be provided with employment through natural processes of business. We called an employment conference and that conference provided voluntary organizations of the country by which we have carried through the winter. The fine spirit with which the municipalities, the manufacturers and the leading men in every city and town in the industrial sections have met the situation has been indeed a fine credit to American men and American women. We have gone through this winter—the winter of greatest unemployment in our history—with scarcely a soup line in the United States. We have gone through it with the least suffering that we have had in any period of great unemployment. I will not say there has not been suffering, for there has. But nevertheless, through this voluntary emergency mobilization of coöperative effort, we have gone by the most

difficult of winters which I hope that our generation will have to meet.

We come by this experience to the questions as to whether there is something that can be done of a permanent order that will minimize these great waves of unemployment that come upon us with every business depression. I know that many people will say that the idea that we could regulate the business cycle in the United States to give greater stability is preposterous. But the same people would have said it is equally preposterous to organize the Federal Reserve System as a remedy to periodic financial panics, if they had been speaking thirty years ago. I myself see no more reason why it is not possible we should organize the industrial fabric of the United States so as to preclude the worst phases of these acute unemployment situations just as much as we have organized our financial system to preclude financial panics. The Department of Commerce is engaged on an exhaustive study of that problem and that it is not wholly in the land of dreams, I would point out to you one phase. If by any device we could postpone the construction of plants and equipment in the United States, even as to some small portion, during those periods in which we are engaged in high production of consumable commodities, and until periods when demands for consumable commodities have fallen, we could straighten out the curve of unemployment in the United States. Our investigation shows that if construction in public works, and public utilities could be retarded 10 per cent per annum during years of prosperity and that saving in volume of construction and finance provided so it could be applied in years of depression, there would be no periodic wave of unemployment in the United States. Nor is that an infeasible thing to put into practice with more intelligent and with more coöperative action between our Government and the great utilities.

We find there are other problems in this unemployment question that are pertinent and must find some form of remedy. I know of no better example than that of the bituminous coal industry. That industry has fallen into a vicious circle, constantly tightening, in its grip, until we are faced with the greatest coal crisis we have had to meet. You probably do

not realize that that industry operates but an average of one hundred ninety and two days per annum. That is not a seasonable fluctuation in production. It is an intermittent production of nearly every mine. Whereas many other industries operate from two hundred and fifty to three hundred and twenty-five days in normal years, the bituminous coal industry operates an average of one hundred and ninety-two days. The economic aspect is that there are more mines than we need and thirty per cent more men tied to that industry than we have any use for in the industry itself. It means worse things than that. It means a constant fight and endeavor on the part of those men to get out of one hundred and ninety-two days' work a year's living. And the strike now impending is inherently and at base a demand on the part of those men that they must have a living wage based on one-half employment. That is not the fault of the men, nor is it the fault of the owner and operator of the coal mines. It is a vicious cycle into which the industry has fallen. Year by year we push up the wage per diem and the cost of coal to the consumer and shorten the time of operation. We must find a remedy somewhere and in the remedy lie three things. In it lies greater stability in industry, for no industry is so speculative as coal mining to-day. A solution means great stability, a higher annual earning for the men engaged in that industry. It means reduced cost of coal to the consumer. I have no solution to offer. I point out to you that this is but typical of the problems we must meet in the better organization and the reconstruction of our economic system.

I am afraid I have taken more than the allotted time.

I had a number of subjects, merely illustrative perhaps of the attitude of mind of the men who are trying to deal with these problems. One I wish to speak on a moment is the question of federal taxation. Very few of you realize the sort of permanence of our tax burden. If you will analyze the total of the Federal budget, you will find that sixty odd per cent relates to payment for previous wars, and as we have incurred the debt we cannot shirk the payment. Some twenty-odd per cent relates to provision for future wars and in that direction we entertain high hopes of reduction in cost. In fact the first definite, positive step yet made in the history of the world for

reduction of armament and the burden on the back of every man that toils lies in the Washington Conference on Disarmament, for the ratification of which we are awaiting on the United States Senate.

We have been doing what we could to reduce expenditures. I am afraid we have, in many instances, cut the Government expenditure to the quick and gone too far. But that we have done something may be indicated to you from the fact that we have dismissed sixteen thousand employees from the city of Washington alone. We have made an effort to reduce the burden of taxation on the backs of the American people. We have so far fought every measure that would add to those burdens. But when we come to contemplate the real remedy, the real measures that must be taken if we are to carry this burden, it seems to me we come into an entirely different line of thought. The great majority of our tax burdens cannot be dismissed.

We need to build up the assets of the United States. If we could go ahead with the development program of natural resources of this country with rapidity and with the courage that we have carried the last twenty-five years, this burden of debt and taxation will trouble us but little. When we come to contemplate the great resources that we should undertake, we come to such opportunities as the development of the Colorado River. This great stream holds nascently four millions of horse power, the possibility of irrigation of four million more acres of land, capable of supporting on various estimates from three million to ten million people additional in the West, a worth while addition to the numbers who can assist in carrying our burdens.

And now, generally, one must bear in mind that we have suffered the greatest of economic wounds of our history. Neither the war of the Revolution nor the Civil War brought to us so much in economic difficulties as has the Great War. In both of those wars, in all of our previous wars, the rest of the world has been stable, has been able to throw its resources into the United States in support of our difficulties. But to-day we alone have any reserve strength in the economic world and therefore our difficulties are double. But economic wounds are like gun shot wounds—they must heal cell by cell. They cannot be healed by economic patent medicines and porous

plasters. Their healing must be the result of proper health to the patient, the maintenance of his courage and cheerfulness. And the cells are the commercial and industrial men of the United States.

No one who holds faith in the greatness of America's resources, or the courage of our people, or the neighborliness or intelligence of our men and women, doubts for one moment that our people will return to full employment and ever increasing enjoyment of those blessings God has given to this land.

I never appear on an occasion like this, in discussion of these problems, that my thought does not revert to the fundamental thing. We are not a nation of machines, a nation of buildings, or factories, or railways. We are a nation of men and women and children. Our industrial system and our commerce are simply the implements for their comfort and their happiness, and when we deal with these great problems of business and of economics we must be inspired by the knowledge that we are dealing with increase or decrease in their comfort and standards of living. And in dealing with these problems, you and I and thousands of other men throughout our country are endeavoring to materialize the hope that we shall have added somewhat to the standard of living and comfort of these one hundred millions of people. For upon the soil of their comfort and well-being will grow those moral and intellectual forces that make America itself.

WASTE—A PROBLEM OF DISTRIBUTION

Owing to the widespread misunderstanding of what takes place in distribution and the necessity for detailed studies of their problems by distributors themselves, the Board of Directors of the Chamber of Commerce of the United States authorized the calling of a National Distribution Conference. This took place in Washington on January 14 and 15, 1925. The Conference was composed of about two hundred business men, representative of agriculture, manufacture, wholesale and retail distribution, without regard to whether or not they were members of the Chamber.

Mr. Hoover's address was delivered at the opening session. By its clear and forcible statement of conditions with suggestions for

remedying them, this address not only contributed largely to the immediate results of the Conference but became an important document in the general subject of distribution.

The outstanding problem of our distribution system can be easily summarized in one question.

Can we reduce the margin between our farmer and manufacturing producers on one side, and our consumers on the other?

I am convinced that we can. I believe that it can be done without reduction of wages or legitimate profits. I believe that in doing so we can make the greatest contribution to the improvement of the position of our farmers and that we can make a contribution to lowered cost of living. I believe it can be done by voluntary coöperation in industry and commerce without governmental regulation. It can be expedited by an extension of the friendly assistance of the Government agencies in organization and information.

These possibilities lie in the elimination of waste. I have hesitated to make so general a pronouncement until I felt that we could clearly demonstrate not only the existence of such great wastes but also demonstrate from actual experience the practicability of their elimination and the method of doing it.

The area of undue profits in the margin has been pretty well eliminated in the past two years. During the period of inflation and deflation there were both undue profits and undue losses, both equally a burden upon the producer and consumer. But with the gradual stabilization in prices the processes of competition have attended to this job.

The Department of Commerce has, during the last four years, engaged in continuous and exhaustive study of our whole distribution system. We have demonstrated in several score of different directions the practicability and success of a definite program. We have, during this time, held over 200 conferences with those representing various trades and industries in advancing these ideas—practically all of them at their request. There is to-day in actual motion effective organization cooperating with the Department in systematic and gradual

elimination of such waste. Something over 100 industries and trades are developing actual programs in various stages of attainment. They vary from a single commodity to such organizations as that which we have set up for regional action of shippers and the railways. We have thus conducted a great experimental laboratory from which we now have definite results. I have resolved to take this occasion to give to you the conclusions drawn from our experience, with the hope of their wider adoption and of your continued and increased support upon a more systematic scale.

There is no room for soap box oratory in this theme. It is necessary to get down into the dry economic fundamentals of our distribution system, for remedy lies in more tedious work of investigation and negotiation and decision. It is easy to be entertaining if we set up straw men and wail at their destruction of human liberty, to effect the discovery of wicked profiteers and leeches who are sucking out the blood of the nation, but there is little poetry and no recreation in working out these problems trade by trade.

I wish at once to make it clear that in speaking of waste, I do not mean waste in the sense of willful waste, but economic waste, which is the natural outgrowth of a competitive system. I do not mean the waste that any single individual can correct by his own initiative, but the waste that can only find remedy in collective action. Nor are the wastes to which I refer to be corrected by any extension of the Ten Commandments, or by any legislative extension thereof. You cannot catch an economic force with a policeman.

The kinds of waste that cause costly losses may be roughly catalogued as follows:

1. Waste from the speculation, relaxation of effort and extravagance of booms with the infinite waste from unemployment and bankruptcy which comes with the inevitable slump.

2. Waste from excessive seasonal character of production and distribution.

3. Waste caused through lack of information as to national stocks, of production and consumption with its attendant risk and speculation.

4. Waste from lack of standards of quality and grades.

5. Waste from unnecessary multiplication of terms, sizes, varieties.

6. Waste from the lack of uniformity of business practices in terms and documents, with resultant misunderstandings, frauds and disputes.

7. Wastes due to deterioration of commodities.

8. Waste due to inadequate transportation and terminals, to inefficient loading and shipping and unnecessary haulage.

9. Waste due to disorderly marketing, particularly of perishables, with its attendant gluts and famines.

10. Waste due to too many links in the distribution chain and too many chains in the system.

11. Waste due to bad credits.

12. Waste due to destructive competition of people who are in fact exhausting their capital through little understanding of the fundamentals of business in which they are engaged.

13. Waste due to enormous expenditure of effort and money in advertising and sales promotion effort, without adequate basic information on which to base sales promotion.

14. Waste due to unfair practices of a small minority.

15. A multitude of wastes in use of materials, in unnecessary fire destruction, in traffic accidents and many other directions.

These wastes are not the small change of industry and commerce. There is scarcely a step in this accomplishment of squeezing out waste which does not interpret itself in millions of dollars of annual saving.

As these wastes are enumerated they may seem to be of main interest to manufacturers and distributors. But in the end the public pays the bill. It is either charged into the consumers' price of goods at one end, or subtracted from the wages of producers of raw materials, such as miners and farmers, at the other end.

The work of the Department during the last three years has demonstrated that there is a vast importance to these wastes. I am disposed to agree with a recent report of the Engineering Council that they amount in many lines to 25 or 30 per cent of the cost paid by the consumer or producer of raw materials. They cannot all be corrected and where progress can be made it is only through toilsome building step by step in a thousand

places, and always and only through the coöperation of well disposed trade and industry, and through a wider understanding of the problems involved, and of the coördination of effort necessary to secure results. This is not emergency work as new wastes will constantly arise and permanent trade organizations are needed in each industry for their elimination.

There has been a vast amount of research into our distribution problems, and many publications on them during the last few years. Many have been largely directed toward discovery and exposure of some real or supposed great crime. Others have searched for a miracle panacea that would overnight effect enormous cuts in the great margin between our farmers and our consumers, or between the manufacturers and their clientele. No such panacea has been found simply because there is none. There are no short cuts to progress.

Nor are we here to worry on behalf of the lady who wishes to order a cake of yeast by telephone to be delivered by a gold colored automobile. You and I are interested in this problem solely for a better service to our producers and consumers of the primary necessities and ordinary comforts of life.

The reduction of waste means that a considerable part of our population who are busily employed in this unnecessary motion can be directed towards the production of other commodities and thus their addition to the national standard of living; it means a lowering in cost of living; or it means more goods for the same money. To our workers it means less labor, more time for recreation, and no attack upon wage levels; to our farmers it means an increased proportion of the consumers' dollar as the returns which he receives from his produce are subject to the deductions of the cost of marketing. If we decrease these costs by the elimination of the waste in them we increase the return to him. To him it also means enlarged domestic consumption. Moreover, he participates also in the benefits as a consumer. To our industrial and commercial men there is an increase in stability in business and a sounder foundation under our entire business fabric. The elimination of waste is a total asset. It has no liabilities.

I wish to again emphasize that I do not believe the remedy lies in legislation except in so far as the Government may stimu-

late and assist our citizens to better organization for these purposes and may furnish them with fundamental information which assists in the whole question.

These are the wastes which have grown naturally into our economic system. They can only be corrected by coöperative action. Such action can be built up first by investigation and information, second by conference of the producer and consumer in his various representatives and agreement to abide by the principles laid down.

Nor am I talking about abrogating the Sherman Act. I have no patience with those who deliberately try to confuse these efforts at coöperation in waste elimination with price fixing and restraint of trade. Any intelligent person who has the patience to read and think these problems through and the methods we have developed for their correction will find these efforts to be in the interest of public welfare, and free from trade restraint. They are in fact the foundations of real competition.

In order that I may make myself more clear I propose to discuss both the theory and the practice attained in the work of the Department of Commerce as a sort of economic laboratory during the last three years. Again I may repeat that this discussion is not an entertainment for holiday people. We are here to consider underlying economic questions, tedious as they may be.

Determination of Fact

It is a truism to say that no individual business enterprise could succeed or be conducted without waste if it does not know accurately its stocks, the volume of output or sales, the rate of stock turnover, or its orders, or the prices, assets and liabilities and the relation of these to previous periods. Neither can the business of a trade, as a whole, or the nation itself, function efficiently unless it knows these very things.

The fundamental of every economic action is to first determine the fact. Moreover, as business is a moving thing, the facts must be recurrent in short statistics.

Statistics are a counterpoise to "psychology" in business—an anchor of basic facts to tie to—not hunches of contagious op-

timism or equally contagious pessimism, both of which directly affect the volume of production and business wrongfully and produce in themselves instability.

Again the gigantic waste from the boom of 1920, through the depreciation in value of excessive stocks, would have been much minimized if there had been more complete information as to the volume of these stocks. For instance, prior to that time we had been competing madly in bidding up prices and building up stocks of rubber and nitrates from abroad, and coal among other things at home. As a result, both producers and consumers suffered from the tremendous depreciation of these materials. This need not have happened if the trades had had the statistical information to visualize the volume of these excessive stocks.

The fact is that the greatest waste of all our economic system is the periodic inflationary boom and its consequent ensuing slump with all their speculation, unemployment and extravagance, for without boom there is no slump. The correction of this waste lies in the prevention of booms. No sensible business man wants either boom or slump. He wants stability. Our working folk should dread a boom above all things, because it means an afterclap of unemployment and misery. Our farmers should resent a boom more than anything else that can happen in our economic system because it means that they will inevitably get the worst of the deflation which follows. Stability or instability in production and distribution is largely the result of the collective judgment of the trades. They cannot form a right judgment unless they know the facts as to their own business and as to the trade as a whole. Furthermore they must also know the probable trend of business in general as indicated by the movement in other trades.

The best protection against booms is that every business man shall have the information so that he may realize from the shifts in credit, from the movements in stocks, of production and consumption, that the economic balance wheel is moving too fast and if every man then safeguards against danger disaster never comes. Moreover the anchor of fact prevents the contagions I have referred to. So the first and foremost thing is to have such facts broadcasted so as to give to every man

that sound basis upon which his own judgment can react. Solemn statistics are the greatest preventative of speculation and profiteering ever invented. There are other important remedies for the irregularities of the business cycle. The proper control of credit against reckless speculative use and the long view planning of public construction and construction in our great industries in such a way as counter unemployment are vital contributions. But I am now discussing statistics only.

The Government can do much in collection and distribution of statistical information. Indeed the Department of Commerce has greatly improved and expanded these services in the last three years. No other nation provides so complete a service to-day. It needs still greater improvement. However, a considerable part of our statistical service can be better provided by the different trades themselves than by the Government.

Right here some tormentors of progress will rise to say that the collection of statistics by the trades may be used to flimflam the public. They can be so used. They have been so used. Likewise automobiles have been used for purposes of bootlegging but it is not necessary to suppress the use of automobiles on this account, nor is it necessary to allow them bootlegging privileges.

There is a phase of statistical service that has not been fully studied or fully explored, to which I trust this meeting will give thought. We are almost wholly lacking in the basic data as to distribution. We know our production in most important lines of activity. We know a great deal about stocks of commodities in the hands of producers. We know very little as to stocks in the hands of consumers, the area of distribution in any commodity. If we had a census of distribution I am convinced that this information would automatically eliminate a great amount of waste in the whole distribution machinery. High pressure selling and marketing expenditure in unprofitable areas is a national waste. We do not know where these areas are to-day.

Standards of Quality and Grade

Next to statistics as a power to eliminate waste comes standards.

In order to have standards we must have methods of test by which the fidelity to these standards can be determined. We must have a definition of terms which we apply to these standards. We must have a formulation of specifications to express these terms. Here we enter upon involved problems of chemistry and physics and trade practice and public need and legal implications of the widest character.

Some years ago we established standards of quality in the purchase of cement by the Federal Government and at the same time we established the tests which should be applied to determine whether these standards had been fulfilled. At that time cement manufacturers were each endeavoring to establish their own standards and the consumers setting up counter demands of performance. The consumer was unable to determine the character of the product which he received and the manufacturer had no assurance upon which to proceed in satisfaction of the consumer. The Federal standards for cement have to-day become the universal standard in both manufacture and distribution. This standard has simplified the production processes. It has simplified all contracts. The tests are well known which determine the fidelity of the manufacturer and secure him against misrepresentation from the consumer. No doubt new standards must be determined from time to time with the progress of industry and commerce but every standard established carries with it an elimination of millions of waste in production, in business transactions, and waste by failure of the commodity itself. This same problem lies at the bottom of producing and marketing of agricultural produce. If we had more effective standards in perishable foods to-day we would be on the road to large savings for the farmer. The foundation of proper standards is scientific investigation and then coöperation of the representatives of the producer, the distributor, and consumer in bringing them to practical workday conditions.

These standards also extend to determination of nomenclature. For when we speak of No. 1 clears in lumber we must define what it consists of. I do not propose to burden you with the great number of standards of quality that have been established in the last three years by the Department of Commerce in coöperation with the producers, distributors and consumers. They range through literally scores of commodities. They are the foundations upon which both fidelity and economy in our business processes revolve and are the first instrument in eliminating fraud, dispute and costly litigation.

Standards of Dimension

We need standards not only of quality but also of dimension. Standards of quality, standards in terms, and standards in dimensions at once eliminate a vast amount of unnecessary varieties—all of which we comprehend under the term "simplification."

During the last three years the Department has, in coöperation with the industries concerned, installed these simplifications of dimensions and varieties in a multitude of commodities. For instance, the dimensions of paving brick have reduced from 66 to 5 different sizes; of rasps and files from 1351 to 496; in wire fencing from 552 to 69; in milk bottles from 49 to 9; in lumber 60 per cent of the variations in sizes were eliminated; in hotel and institutional china the sizes and varieties were reduced from 700 to 160. These are a few instances among many, and in themselves may appear trivial but they represent literally millions of annual savings in even this small sector of our national waste.

This particular process has a vital bearing upon the reduction of the cost of distribution. There is by these means created the possibility of more rapid turnover, less volume of stocks, and less dead stocks.

And there is an implication of this establishment of standards and elimination of unnecessary dimensions and varieties which is often overlooked. It sharpens the knife of competition for there is much less competition between dissimilar ar-

ticles than between articles of the same quality, designation and character.

As a practical example of what standardization means, take the average stock carried by a general plumbing supply house. Thousands of parts are carried a large part of which are usable on only a few kinds, styles or types of equipment. Every builder of a bathroom must pay for the large capital tied up in stocks, extra clerks to keep the stock in order, extra wages to plumbers for installing of a hundred styles, each calling for different specifications.

We spent five billion in building in 1924. How much could have been saved with more simplified parts in plumbing equipment, hardware, lumber, bricks, doors, windows, et cetera; all down the line from the factory that turns out the stock, the warehouses that must carry the stocks, and the workmen that make the installations?

Wasteful competition due to purposely making odd sizes often occurs in the mistaken idea that it gives the manufacturer a competitive advantage. The only case where unlimited diversification seems justified is padlock keys.

At this point I wish to answer another of the tormentors of progress—the one who finds great humor in standardizing women's hats. No serious person has ever given thought to the standardization of style or the freezing of quality, or the elimination of individualism. What we want is to know what is being dealt in and eliminate unnecessary duplication. Moreover we are concerned only with those commodities which are common necessities of life. To have established interchangeability of all the bolts and nuts in the United States so that a bolt or nut or nipple of a given dimension will screw onto every bolt or pipe of the same dimension has been one of those unsung accomplishments that have made more for public welfare than most of the oratory for a year. With all of its ramifications in cheapening of industrial production of repairs, of decreasing the volume of stocks in distribution and the dead stocks for which there is no demand, even this apparently insignificant item can claim tens of millions of savings to its credit.

Simplification of Business Practices

Our production and distribution moves on wings of documents. We make specifications and contracts and receipts and invoices and bills of lading and forms and documents of a thousand varieties. All of the contractual documents are presumed to express mutual agreement of the buyer and seller, but they do not do so as witness three-fourths of the occupation of our courts. The reason they do not express mutual agreement is because the terms mean different things to different minds and above all every individual establishment or service has different bases of documentation.

Recently a conference of the furniture and merchandise warehousemen developed that over 200 different warehouse documents were in use to serve a single purpose and they were by common action reduced to single standard form. This narrow sector of one trade estimates there is a saving of five million dollars a year in clerical work and beyond that vast saving in litigation and disputes.

Another phase of this same problem is that of specifications, which is the expression of standards. At the beginning of this administration I undertook to establish standard specifications for the purchases of goods by the Federal Government. We were using different specifications in every department, for the same commodities, all changing frequently. That work has proceeded under the Bureau of the Budget, with the coöperation of this Department, until it has eliminated literally thousands of differences. As I said before, a determination of specification must be subsequent to determination of standards in quality and dimension. These things are determined not alone by scientific investigation but in consultation with manufacturers as to what will secure the best article at the least production cost. The savings to the taxpayer by enabling the Government to secure precise bids and commercially sound articles is of the utmost importance, but far more than this the general public is now beginning to adopt these specifications and standards, which gradually simplifies problems of manufacturers and distributors.

At the request of many national purchasing agencies we undertook to investigate the whole field of specifications. In this work we undertook to collect the different specifications in current use in commerce. We have so far received from the trades 40,000 different specifications now in current use. In coöperation with committees from the different trades we are endeavoring to work out some standard specifications. Behind this of course lies the whole process of establishing standards of quality, dimension, etc. When specifications are agreed upon with the coöperation of representatives of both the consuming trades and the producing trades, they reduce unnecessary variety, they decrease cost of production and distribution, they are a real contribution to the elimination of waste. If we ever succeed in these reforms in commercial documentation we will not only add stability to commerce and reduction of prices, but we will create unemployment in the legal profession.

Trade Ethics

There is a problem in waste which revolves in the field of trade ethics. Unfair competition of course is waste as it imposes wasteful processes and wasteful and fraudulent practices on other members of the trade and the public. It is prohibited by law. The law is, however, very obscure in determination of what is an unfair practice.

In the field of business ethics we have seen a great advance in the last two decades and chiefly due to the effort of the better trade associations. This brings up an interesting question as to the use which might be made of trade opinion and determination of what is unfair competition. Our English common law was a crystallization into law of trade practices which anteceded it many centuries but with their crystallization into law, and with the development of the industrial era with its multitude of new methods of violating the Ten Commandments, trade opinion and custom effecting probity and fairness has had but little representation in the formulation of rules. It would seem worth considering that the voices of the large

majority of a given trade might be given weight in the determination of what is unfair. It might lead to a degree of self government of industrial and trade morals which would free us from much regulation.

Wasteful Competition

There are processes of wasteful competition which are entirely outside of legal interpretation of unfair competition. They rise chiefly from ignorance of efficient methods of conducting business and they impregnate our whole system of distribution from top to bottom.

Few people who have examined our distributive methods will deny that a minor element of our retail traders are so ignorant of the primus of accounting that they unconsciously deplete their capital to the point of exhaustion before they cease operations. It is also generally apparent that such people are dangerous competitors, who undermine the whole scheme of fair competition and thus do far more damage than their numbers might imply. These men are sure to result eventually in failures with a consequent waste of capital, which is reflected in higher costs to the consumer. It is not in the interest of the public to have so many units in any trade that they cannot all operate efficiently at a living wage; it means a vast duplication and in the end imposes charges and waste on the ultimate purchaser.

The only remedy that I know is education. For some time the Department of Commerce has been attacking this problem with the aim of spreading among this section of the business public a better knowledge of what constitutes efficient trade practices. An indication of the interest evidenced by the public is seen in a demand for over 55,000 copies of the first bulletin issued. Comprehensive plans are being laid and followed by the Department to collect and disseminate knowledge of best merchandizing practices in many trades. Requests from many branches of commerce to aid in solving specific problems have fairly deluged this organization of the Department. I cite this fact particularly, as the methods being applied are those of

scientific analysis and treatment which I have just recommended.

Waste in Transportation

Expeditious, regular transportation is a fundamental necessity. Any stricture or clog brings untold wastes in distribution. A coal car shortage not alone raises the price of coal but it dislocates production and distribution right and left. The penalties of any transportation failure are far greater than the whole freight charge on the commodity in motion. Due to the energies of our railway managers we have now emerged from this particular chaos of the war. We have, however, a problem in freight terminals which has not grown in tune with our cities. There are cities where the terminal distribution costs on many commodities, particularly perishables, are larger than some long haul rates. The problem is by no means one that can be entirely solved by the railways. There are wastes in transportation for which the shipper is responsible—wastes of partial car loading, wastes of long routing and cross haul, wastes of bad packing, wastes in reconsignment. They probably aggregate a half billion a year over what we could do if we did it better. The voluntary regional committees of shippers and railway operatives now functioning in these fields are bringing much economy.

Duplication of Distribution Facilities

Obviously one of the greatest wastes in our whole distribution system is the unnecessary number of links in the distribution chain and the excessive number of chains. This is, however, the most intangible, imponderable problem in the whole gamut of distribution wastes.

I do not think anyone will deny that we have more retail and wholesale establishments than we need in all sorts of directions and that, therefore, there is imposed upon the distribution system a vastly larger overhead than is necessary. There is no way of preventing a man going into business if he wants to,

nor would it be desirable, for if we were to limit the number of people who enter into any profession or occupation we would set social currents going that would be the destruction of the whole system.

Every time we set up a standard, every time we set up a better understanding of accounting and principles of business, we will, in ultimate effect, diminish the excessive number of units by bringing competition into the more legitimate foundations of intelligent action and as a result will tend to diminish this excessive membership in the trades with their wasteful overhead charged against the consumer.

Other Wastes

It is not my purpose to go into those fields of improvement in power, waterways, building methods, seasonal operations, scientific investigation in the use of materials, and a dozen directions—for we are here dealing primarily with existing wastes in distribution. The wastes in these other directions are of vast importance and can be organized out.

We may question ourselves as to what part this conference can take in such a program, if it meets with your approval as it has already met with the approval of many of your members. The distribution trades can play the greatest part because not only organized coöperation to determine what should be eliminated, but also the practical enforcement of such eliminations lies entirely within the distribution trades. The organization of the distributors can absolutely enforce standards and simplifications and other waste eliminations which are initiated in coöperation with the production industries. In every instance where the Department has coöperated with the manufacturers in bringing about these changes, they and we have been anxious to secure the assistance of the distribution trades to participate. The power of enforcement of all this program lies in the hands of the distributors of the United States. By so doing they will be reducing the stocks and risk which they must carry, will expedite turnover and free themselves from much dead stock.

Our economic system has developed marvelously as the result of individual initiative. We must preserve that. But there is also the initiative of the trade or group which we must equally develop if we are to perfect this system. It will not undermine the initiative of the individual—it will support it.

Our merchant spirit has seen a great evolution into service during this last score of years. The merchant to-day earnestly gives service with his goods. He is concerned with the service which his goods perform—he is concerned with the good of the community. What we need now is to extend this spirit of service by the group as a whole.